

## **II. INTERNATIONAL FORUM ON PLASTIC SURGERY**

organized by the Hungarian and  
Romanian Societies for Plastic,  
Reconstructive and Aesthetic Surgery

jointly held with the

**XIII. CONGRESS OF THE HUNGARIAN SOCIETY OF  
PLASTIC, RECONSTRUCTIVE AND AESTHETIC SURGERY**

and the

**XXV. CONGRESS OF THE HUNGARIAN BURN ASSOCIATION**

**Budapest, Danubius Health Spa Resort Margitsziget  
October 8-10, 2009**

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***Dear Colleagues, Dear Friends,***

After several years of informal preparations, it was in autumn 2008 that the first joint meeting of the Romanian and Hungarian Societies of Plastic Surgery took place in Bucharest, Romania.

The aim of setting up a common meeting was to offer an opportunity for professional and social networking among colleagues in Romania and Hungary.

On the other hand we do believe that such an initiative is worthwhile to be extended in our neighbouring countries as well to involve colleagues who are working in a similar professional and social environment as we are.

Another reason is that a growing regional meeting shall be able to attract more sponsoring that enables organizers to invite an increasing number of keynote speakers delivering state of the art lectures.

Hungarian plastic surgeons are celebrating the 50<sup>th</sup> anniversary of their beloved profession this year.

Thank you for joining us in Budapest and spending a nice autumn meeting in our company.

*Ödön Rezek*  
president  
HSPRAS

*Csaba Molnár*  
president  
Local Organizing Committee

*Zsolt Révész*  
secretary  
Local Organizing Committee

***Dear Colleagues,***

It is a great pleasure to see that the project started in Bucharest in autumn 2008 proves viable, for the benefit of all.

This is the second regional congress and this time the Romanian plastic surgeons are honored to be guests of their Hungarian colleagues. We hope that these meetings will grow in importance and contribute through joint efforts to the development of plastic surgery in our countries. Developing professional relationships, scientific and possibly the joint approach of research topics may be pillars for strengthening our cooperation.

We are looking forward to discover the beauties of Budapest with the help of our Hungarian colleagues.

Cordial regards,

*Ioan Lascar*  
President  
ROAPS

## **Main Patron**

*Dr. Tamás Székely*  
Minister of Health of Hungary

## **Congress Presidents**

*Dr. Ödön Rezek*  
*Prof. Dr. Ioan Lascar*

## **Special Faculty Guest**

*Prof. Dr. Michele L. Zocchi*, CSM Institute of Plastic Surgery, Turin, Italy  
*Prof. Dr. Andrej Banic*, University Hospital Inselspital, Bern, Switzerland

## **List of International Faculty**

*Prof. Dr. Pavel Brychta*, Masaryk University, Brno, Czech Republic  
*Dr. Christoph Andree*, Sana-Hospital, Düsseldorf, Germany  
*Dr. Javier de Benito Mora*, De Benito Institute, Barcelona, Spain  
*Dr. Fahd Benslimane*, Clinique Benslimane, Casablanca, Morocco  
*Dr. Henrique Cintra*, Ivo Pitanguy Institute, Rio de Janeiro, Brazil  
*Prof. Dr. Andreas Foustanos*, Iasso Hospital, Athens, Greece  
*Dr. Marcelo Irigo*, Italian Hospital of La Plata, Argentina  
*Dr. Wei Liu*, Shanghai 9<sup>th</sup> People's Hospital, China  
*Prof. Dr. Stan Monstrey*, Ghent University Hospital, Belgium  
*Dr. Dimitrije Panfilov*, Olympic Clinic, Novi Sad, Serbia  
*Dr. Alberto Rancati*, University of Buenos Aires, Argentina  
*Prof. Dr. Peter Vogt*, Hannover Medical School, Germany

## **List of Romanian Faculty**

*Prof. Dr. Tiberiu Bratu*, Brol Medical Centre, Timisoara  
*Prof. Dr. Dan Mircea Enescu*, 'Grigore Alexandrescu'  
Children's Emergency Hospital, Bucharest  
*Prof. Dr. Ioan Petre Florescu*, Emergency Clinical Hospital 'Bagdasar Arseni', Bucharest  
*Dr. Athanasios Fragkos*, 'Carol Davila' Medical University, Bucharest  
*Prof. Dr. Alexandru Georgescu*, University of Medicine 'Iuliu Hatieganu', Cluj-Napoca  
*Prof. Dr. Ioan Lascar*, 'Carol Davila' Medical University, Bucharest  
*Dr. Silviu Marinescu*, Emergency Clinical Hospital 'Bagdasar Arseni', Bucharest  
*Prof. Dr. Toma Mugea*, Oradea Medical University, Cluj-Napoca  
*Dr. Dragos Zamfirescu*, 'Carol Davila' Medical University, Bucharest

## Scientific Committee

*Dr. Ödön Rezek, chair*

*Dr. Gusztáv Gulyás*

*Dr. Csaba Molnár*

*Dr. Zsolt Révész*

## Hungarian Organizing Committee

*Dr. Csaba Molnár, chair*

*Dr. Zsolt Révész, secretary*

*Dr. Tamás Karvász*

*Dr. György Tizedes*

*Dr. Alfréd Traub*

## Romanian Organizing Committee

*Prof. Dr. Ioan Lascaș, president of ROAPS*

*Prof. Dr. Doina Dumitrescu, vice president of ROAPS*

*Prof. Dr. Tiberiu Bratu, vice president of ROAPS, president of Aesthetic Surgery Section of ROAPS*

*Prof. Dr. Ion Bordeianu, president of Reconstructive Surgery Section of ROAPS*

*Prof. Dr. Ioan Petre Florescu, president of Hand Surgery Section of ROAPS*

*Prof. Dr. Dan Enescu, president of Burns Section of ROAPS*

*Dr. Dragos Zamfirescu, president of Reconstructive Microsurgery Section of ROAPS*

*Dr. Gavril Hodarnescu, general secretary of ROAPS*

*Dr. Oana Vermesan, treasurer*

*Dr. Serban Popescu, international relations*

*Dr. Fragkos Athanasios, international relations*

*Dr. Albu Emanuel*

*Dr. Dan Ionita*

*Dr. Silviu Marinescu*

### **Congress Venue**

Danubius Health Spa Resort Margitsziget  
Margitsziget, Budapest, Hungary, H-1138

Phone: + 36/1/889-4700

Fax: + 36/1/889-4988

E-mail: [msz.reservation@danubiushotels.com](mailto:msz.reservation@danubiushotels.com)

Website: [www.danubiushotels.com](http://www.danubiushotels.com)

### **Scientific Information**

*Dr. Zsolt Révész*

St. István and St. László Hospital Budapest  
Nagyvárad tér 1., Budapest, Hungary, H-1097

Phone: + 36/20/9370-380

Fax: + 36/1/476-0872

E-mail: [zsolt.revesz.dr@gmail.com](mailto:zsolt.revesz.dr@gmail.com)

### **Congress Bureau**

*Máté Lukácsi*, project manager  
Convention Budapest Ltd.

✉ P.O.Box: 11., Budapest, Hungary, H-1461

Phone: + 36/1/299-0184, -85, -86, Fax: + 36/1/299-0187

E-mail: [mlukacsi@convention.hu](mailto:mlukacsi@convention.hu)

Website: [www.hpras2009.com](http://www.hpras2009.com)

## General Information

### Congress venue

The meeting takes place at the Danubius Health Spa Resort Margitsziget, linked with an indoor corridor to the Danubius Grand Hotel Margitsziget.

Lunches on Thursday and Saturday and the welcome reception on Thursday are located at the Széchenyi restaurant of the Grand Hotel, while all other activities related to the meeting take place at the Health Spa Resort.

### Registration

Registration desk is situated in the lobby of the congress hotel.

Registration desk opening hours:

Thursday, October 8, 2009: 08:30-19:00 hrs

Friday, October 9, 2009: 08:00-18:00 hrs

Saturday, October 10, 2009: 08:30-13:30 hrs

### Registration items

Your conference registration includes access to the scientific programmes and exhibition area, congress bag, final programme and abstract book.

Your registration also entitles you to attend the social programmes and meals that you get a ticket for upon registration.

All catering services are available against tickets received at the registration desk.

### Meeting rooms

Plenary room: Star Auditorium on floor -1

Parallel session room on Thursday afternoon and Friday morning: Magnólia Room on floor 0

Satellite symposium room on Friday and Saturday: Boróka 1 Room on floor 0

Exhibition and coffee break area: Jasmine room on floor 0

Lunch on Thursday and Saturday: Restaurant Széchenyi at the Grand Hotel

Lunch on Friday: Restaurant Platán at the congress hotel on floor 0

### Oral presentations – slide preview area

Your presentation shall be loaded with the help of our technician at the computer operating in the meeting room. Presentation taking place before noon should be saved by 08:30 hrs, while presentations in the afternoon should be saved by 13:00 hrs on the day of your presentation.



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## Social Programmes

Thursday

<b>14.00–18.00</b> <i>Registration desk</i>	<b>BUDAPEST CITY TOUR</b>
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Meeting at 14:00 hrs at the registration desk. Arrival back to the congress venue at 18:00 hrs.  
Attending of the city tour is free of charge.

<b>19.30</b> <i>Grand Hotel Széchenyi Restaurant</i>	<b>WELCOME RECEPTION</b>
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<b>14.00–18.00</b> <i>Registration desk</i>	<b>BUDAPEST CITY TOUR</b>
--	---------------------------

Meeting at 14:00 hrs at the registration desk. Arrival back to the congress venue at 18:00 hrs.  
Attending of the city tour is free of charge.

<b>19.30–20.45</b> <i>Registration desk</i>	<b>BOAT CRUISING ON THE DANUBE</b>
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Congress delegates are kindly invited to a short cruising on a boat while enjoying the illuminated highlights of the city. Boat to be accessed by foot from the registration desk. Delegates taking part at the gala dinner will walk directly to the dinner after the boat is back to the Margaret Island.  
Attending of the boat cruising is free of charge.

<b>21.00</b> <i>Room Magnólia</i>	<b>GALA DINNER (OPTIONAL)</b>
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Delegates taking part at the boat cruising will walk together to the Magnólia Room at the congress hotel. Delegates arriving directly to the Magnólia Room shall arrive around 21:00 hrs.  
Please contact the registration desk for onsite registration.

## Final Programme

<b>08.30–19.00</b> <i>Registration desk</i> <i>Floor 0</i>	<b>REGISTRATION</b>
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<b>10.00–11.15</b> <i>Star Auditorium</i> <i>Floor -1</i>	<b>PLENARY SESSION</b> <b>FACE AND NECK I – AESTHETICS</b>
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Chairs: *Alberto Rancati*, University of Buenos Aires, Argentina  
*Fahd Benslimane*, Clinic Benslimane, Casablanca, Morocco  
*Balázs István Szemerey*, Mediburg Clinic, Budapest, Hungary

Keynote lectures  
25'

**Blepharoplasty, transconjunctival approach**

*Alberto Rancati*  
University of Buenos Aires, Argentina

20'

**Face rejuvenation by non-invasive surgery: silhouette lift**

*Javier De Benito Mora*  
De Benito Institute, Barcelona, Spain

20'

**Neck and lower face rejuvenation: the sense of balance  
between upper and lower face**

*Fahd Benslimane*  
Clinic Benslimane, Casablanca, Morocco

10'

**Discussion**

<b>11.15–11.45</b> <i>Room Jasmine</i> <i>Floor 0</i>	<b>COFFEE BREAK</b>
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11.45–13.00  
Star Auditorium  
Floor -1

**PLENARY SESSION  
FACE AND NECK II. – RECONSTRUCION**

Chairs: *Ödön Rezek*, Semmelweis University Budapest, Hungary  
*Éva Csorba*, St. Stephen Hospital, Budapest, Hungary

Keynote lectures  
15'

**Nasal septal reconstruction in rhinoplasty**

*Ödön Rezek*

Semmelweis University Budapest, Hungary

Oral presentations  
8'+2'

**Free flap reconstruction of tissue defects in the maxillofacial region**

*Ferenc Oberna, Beáta Sántha, Ilona Tóth, Mihály Svébis*

Bács-Kiskun County Hospital, Kecskemét, Hungary

8'+2'

**Tumorous giant forehead defect, growing and penetrating under the conditions of the Hungarian Health System. Organization pitfalls of microvascular reconstruction in Hungary**

*Tibor Balajthy, Ferenc Oberna\**

New Contour Plastic Surgery, Budapest, Hungary; \*Bács-Kiskun County Hospital, Kecskemét, Hungary

8'+2'

**Boundaries of reconstruction with local flaps of soft tissue and bony defects of the skull and vertebral column**

*Tibor Balajthy*

New Contour Plastic Surgery, Budapest, Hungary

8'+2'

**Local flaps in plastic surgical treatment of basal cell carcinoma of the face**

*Csaba Kunos<sup>1,2</sup>, Gusztáv Gulyás<sup>2</sup>, Pál Csaba Pesthy<sup>2,3</sup>*

<sup>1</sup>Bács-Kiskun County Hospital, Kecskemét, Hungary; <sup>2</sup>National Institute of Oncology, Budapest, Hungary; <sup>3</sup>State Health Centre, Budapest, Hungary

8+2' **Special surgical interventions for lipoma removal**  
*Éva Csorba, Erika Honti*  
St. Stephen Hospital, Budapest, Hungary

8'+2' **Use of fibrin sealant**  
*Biotest Hungaria Kft.*  
Törökbálint, Hungary

15' **Discussion**

<b>13.00–14.00</b> <i>Grand Hotel Széchenyi Restaurant</i>	<b>LUNCH BREAK</b>
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<b>14.00–15.30</b> <i>Star Auditorium Floor -1</i>	<b>PLENARY SESSION</b> <b>AESTHETIC SURGERY OF THE BREAST I.</b>
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Chairs: *Javier de Benito Mora*, De Benito Institute, Barcelona, Spain  
*Marcelo Irigo*, Italian Hospital of La Plata, Argentina  
*Alfréd Traub*, Aura Aesthetics International, Budapest, Hungary

Keynote lectures

15' **Mastopexy: the key points for understanding the problems**  
*Javier de Benito Mora*  
De Benito Institute, Barcelona, Spain

20' **Mastopexy without implants – autoprosthesis**  
*Alberto Rancati*  
University of Buenos Aires, Argentina

20' **Dynamic patterns in mammary elevation**  
*Marcelo Irigo*  
Italian Hospital of La Plata, Argentina

8'+2' **Versatile, safe and long lasting mammaplasty method**  
*Géza Sikos*  
Sikos Plastic Surgery, Hair Transplant Clinic, Budapest, Hungary

20' **Prophylactic mastectomy, recent trends**  
*Marcelo Irigo*  
Italian Hospital of La Plata, Argentina

5' **Discussion**

14.00–15.30  
Room *Magnólia*  
Floor 0

**PARALLEL SESSION  
MISCELLANEOUS**

Chairs: *Tibor Balajthy*, New Contour Plastic Surgery, Budapest, Hungary  
*Ioan Petre Florescu*, Emergency Clinical Hospital 'Bagdasar Arseni', Bucharest, Romania  
*Ljubisa M. Grujic*, Dr. Grujic Aesthetics Private Clinic for Plastic, Reconstructive and Aesthetic Surgery, Vrsac, Serbia

Oral presentations:

8'+2' **Endoscopic harvest and transfer of the latissimus dorsi muscle for the correction of the Poland syndrome**  
*Tibor Balajthy*  
New Contour Plastic Surgery, Budapest, Hungary

8'+2' **FUE hair transplantation method**  
*Géza Sikos*  
Sikos Plastic Surgery, Hair Transplant Clinic, Budapest, Hungary

8'+2' **Hair transplant – our experience**  
*Ljubisa M. Grujic, Grujic D., Miletic M.*  
Dr. Grujic Aesthetics Private Clinic for Plastic, Reconstructive and Aesthetic Surgery, Vrsac, Serbia

8'+2' **The management of the costochondritis of the chest wall – 4 illustrative cases**  
*László Agócs<sup>1</sup>, Zoltán Heiler<sup>1</sup>, Bernadett Lévy<sup>2</sup>, Róbert Tamás<sup>2</sup>, Attila Csekeő<sup>1</sup>*  
<sup>1</sup>'Korányi' National Institute of Pulmonology, Budapest, Hungary;  
<sup>2</sup>National Health Centre, Budapest, Hungary

8'+2' **Treatment of Aspergillus empyema using open window thoracostomy and myoplasty – preserving the function of the lung**

László Agócs<sup>1</sup>, Bernadett Lévy<sup>2</sup>, Attila Csekeő<sup>1</sup>  
<sup>1</sup>'Korányi' National Institute of Pulmonology, Budapest, Hungary;  
<sup>2</sup>National Health Centre, Budapest, Hungary

8'+2' **Heparin Induced Thrombocytopenia (HIT) - a potentially life-threatening complication of thromboprophylaxis**

Pál Csaba Pesthy<sup>1</sup>, Csaba Kunos<sup>2</sup>, Gusztáv Gulyás<sup>3</sup>  
<sup>1</sup>National Health Centre, Budapest, Hungary; <sup>2</sup>Bács-Kiskun County Hospital, Kecskemét, Hungary; <sup>3</sup>National Institute of Oncology, Budapest, Hungary

8'+2' **Laser treatment of axillary hyperhidrosis**

Dusan Maletic, Ines Maletic  
Polyclinic 'Dr. Maletic', Daruvar, Croatia

8'+2' **Is it necessary to check for potential infection focuses prior to planned plastic surgical intervention?**

Tamás Rozsos  
St. John's Hospital, Budapest, Hungary

**15.30–16.00**  
*Room Jasmine*  
*Floor 0*

**COFFEE BREAK**

**16.00–16.30**  
*Star Auditorium*  
*Floor -1*

**OFFICIAL CONGRESS OPENING**

*Tamás Székely*  
Minister of Health of Hungary

*Ödön Rezek*  
President, Hungarian Association of Plastic, Reconstructive and Aesthetic Surgery

*Ioan Lascar*  
President, Romanian Association of Plastic Surgery



16.30–18.00  
Star Auditorium  
Floor -1

**PLENARY SESSION  
MICRO SURGERY AND EXPERIMENTAL SURGERY**

Chairs: *Ioan Lascar*, 'Carol Davila' Medical University, Bucharest, Romania  
*Andrej Banic*, University Hospital Inselspital, Bern, Switzerland  
*Gusztáv Gulyás*, National Institute of Oncology, Budapest, Hungary

Keynote lectures  
15'

**Robotics, robotic surgery, telerobotic surgery, telepresence and telementoring in plastic surgery**

*Ioan Lascar, Dragos Zamfirescu*  
'Carol Davila' Medical University, Bucharest, Romania

15'

**Reconstructive transplant surgery and methods to induce immunologic tolerance in composit tissue transplantation**

*Dragos Zamfirescu, Ioan Lascar, Marco Lanzetta\**  
'Carol Davila' Medical University, Bucharest, Romania; \*Canberra University, Australia and Italian Institute for Hand Surgery, Monza, Italy

Oral presentations  
8'+2'

**Proximal and distal nerve transfers**

*Ioan Lascar, Dragos Zamfirescu, Oana Vermesan, Serban Popescu, Athanasios Fragkos, Andrei Stefanescu, Ruxandra Sinescu, Bogdan Maciuceanu*  
'Carol Davila' Medical University, Bucharest, Romania

8'+2'

**Simultaneous hemiface and vascularized bone marrow transplantation in rats**

*Dragos Zamfirescu, Ioan Lascar, Mihail Climov*  
'Carol Davila' Medical University, Bucharest, Romania

8'+2'

**New surgical instrument for facilitating breast augmentation and breast reconstruction with introperative dilatation and expansion of pectoralis major muscle**

*Gusztáv Gulyás*  
National Institute of Oncology, Budapest, Hungary

8'+2'      **The novel dexterity enhancer instrument-holding fingertip support microsurgical technique and its application in plastic and reconstructive surgery**  
*Gergely Pataki, Zsolt Révész, András Csókay\*, Éva Csorba*  
St. Stephen's Hospital, Budapest, Hungary; \*St. John Hospital, Budapest, Hungary

20'      **Discussion**

**16.30–18.30**  
*Room Magnólia*  
*Floor 0*

**PARALLEL SESSION**  
**BURN RECONSTRUCTION**

Chairs: *Peter Vogt*, Hannover Medical School, Germany  
*István Juhász*, University of Debrecen, Hungary  
*Dan Mircea Enescu*, 'Grigore Alexandrescu' Children's  
Emergency Hospital, Bucharest, Romania

Keynote lectures  
25'

**Limb salvage in electrical burns using microsurgical techniques**

*Peter Vogt*  
Hannover Medical School, Germany

25'      **Functional reconstruction in plastic surgery**

*Peter Vogt*  
Hannover Medical School, Germany

15'      **Combined surgical strategies extensive burns**

*Dan Mircea Enescu*  
'Grigore Alexandrescu' Children's Emergency Hospital, Bucharest,  
Romania

Oral presentations  
8'+2'

**Improved burn wound healing provided by modern, strong antimicrobial capacity silver containing moist dressings**

*István Juhász*  
University of Debrecen, Hungary

- 8'+2'      **Burns and plastic surgery center – cost efficiency considerations**  
*Dan Mircea Enescu*  
'Grigore Alexandrescu' Children's Emergency Hospital, Bucharest, Romania
- 8'+2'      **Integra in treatment of burn sequelae – initial experience**  
*Grujic Daciana, Grujic L., Prilipceanu G., Nemes M., Gaurav N.*  
Emergency County Hospital, Timisoara, Romania
- 8'+2'      **Are the burnt patient healed after skin closure?**  
*Éva Csorba, György Sáfrány, Erika Honti, Ágnes Csatáry*  
St. Stephen Hospital, Budapest, Hungary
- 20'      **Discussion**

<b>19.30</b> <i>Grand Hotel Széchenyi Restaurant</i>	<b>WELCOME RECEPTION</b>
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<b>08.00–18.00</b> <i>Registration desk</i> <i>Floor 0</i>	<b>REGISTRATION</b>
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<b>08.30–09.30</b> <i>Star Auditorium</i> <i>Floor -1</i>	<b>PLENARY SESSION</b> <b>SEXUAL AND GENITAL SURGERY</b>
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Chairs: *Stan Monstrey*, Ghent University Hospital, Belgium  
*György Tizedes*, University of Pécs, Hungary

Keynote lectures  
25'

**Sex reassignment surgery in transsexual patients**

*Stan Monstrey*  
Ghent University Hospital, Belgium

15'

**Transsexual operations: comparison of female to male methods**

*György Tizedes, G. Pavlovics, Z. Knausz, Z. Kádár, S.G. Sajjadi, B.G. Kovács, L. Marjas*  
University of Pécs, Hungary

Oral presentation  
8'+2'

**Our experiences with genital aesthetic surgery of labia minora**

*Tamás Rozsos*  
St. John's Hospital, Budapest, Hungary

10'

**Discussion**

<b>09.00–10.00</b> <i>Room Magnólia</i> <i>Floor 0</i>	<b>SATELLITE SYMPOSIUM</b>
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**Breast augmentation – new anatomical implants: guidelines, types, pockets, fillers, shapes**

*Javier de Benito Mora*, director of Javier de Benito Institute, Barcelona, Spain

09.30–10.00 <i>Room Jasmine Floor 0</i>	<b>COFFEE BREAK</b>
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10.00–12.00 <i>Star Auditorium Floor -1</i>	<b>PLENARY SESSION SURGERY OF THE EXTREMITIES I – AESTHETICS</b>
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Chair: *Csaba Molnár*, Plasztika 2000 Private Clinic, Debrecen, Hungary  
*Henrique Cintra*, Ivo Pitanguy Institute, Rio de Janeiro, Brazil

30' **Lunch time procedure: non-invasive skin tightening by the newest generation Thermage unit**

*Peter Ljubetic*

Solta Medical Inc., USA

Moderator: *Balázs István Szemerey*, Mediburg Clinic, Budapest, Hungary

30+15' **25 years experience with aesthetic and reconstructive breast surgery**

*Henrique Cintra*

Ivo Pitanguy Institute, Rio de Janeiro, Brazil

**Surgery of the extremities – Aesthetics**

Keynote lecture

20' **Leg and calf reshaping: an original artistic model**

*Fahd Benslimane*

Clinic Benslimane, Casablanca, Morocco

Oral presentation

8'+2' **The possibility of legs modelling in plastic surgery**

*Ferenc Fierpasz, Csaba Viczián, Huba Bajusz*

St. Gellért Private Clinic, Szeged, Hungary

8'+2' **Hirudo Medicinalis in finger replantation**

*Ljubisa M. Grujic, Grujic D.*

Dr. Grujic Aesthetics Private Clinic for Plastic, Reconstructive and Aesthetic Surgery, Vrsac, Serbia

5' **Discussion**

11.15–12.15

Room Boróka I.  
Floor 0

## SATELLITE SYMPOSIUM

Chair: *Ioan Lascar*, 'Carol Davila' Medical University, Bucharest, Romania

### **Injectable facelift with Botox-Vistabel and Juvederm Ultra**

*Athanasios Fragkos*  
KOL Allergan

12.00–13.00

Restaurant Platán  
Floor 0

## LUNCH BREAK

13.00–15.00

Star Auditorium  
Floor -1

## PLENARY SESSION STEM CELL

Chairs: *Michele L. Zocchi*, CSM Institute of Plastic Surgery, Turin,  
*Wei Liu*, Shanghai 9<sup>th</sup> People's Hospital, China  
*Silviu Marinescu*, Emergency Clinical Hospital 'Bagdasar Arseni', Bucharest, Romania

Keynote lectures

15'

### **New concepts in adipose tissue physiopathology**

*Michele L. Zocchi*

CSM Institute of Plastic Surgery, Turin, Italy

30'

### **Tissue engineering research and its application in plastic surgery**

*Wei Liu, Yilin Cao*

Shanghai 9<sup>th</sup> People's Hospital, Shanghai Jiao Tong University School of Medicine; National Tissue Engineering Center of China

15'

### **A study regarding the use of nervous conduits in nerve regeneration**

*Mihai Ruxandra, Silviu Marinescu, Ioan Petre Florescu, Giuglea Carmen*

Emergency Clinical Hospital 'Bagdasar Arseni', Bucharest, Romania

- 20' **Adipose derived stem cells: present status and future perspectives**  
*Michele L. Zocchi*  
 CSM Institute of Plastic Surgery, Turin, Italy
- 30' **Bicompartmental breast lipostructuring: before and after lipocondensation**  
*Michele L. Zocchi*  
 CSM Institute of Plastic Surgery, Turin, Italy
- 10' **Overview of technical aspects of liposuction and lipofilling**  
*Zsolt Révész<sup>1</sup>, Judit Sebestyén<sup>1</sup>, Éva Csorba<sup>1</sup>, Csaba Molnár<sup>2</sup>*  
<sup>1</sup>St. Stephen's Hospital, Budapest, Hungary; <sup>2</sup>Plasztika 2000 Private Clinic, Debrecen, Hungary

**Discussion**

<b>15.00–15.30</b> <i>Room Jasmine</i> <i>Floor 0</i>	<b>COFFEE BREAK</b>
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<b>15.30–16.30</b> <i>Star Auditorium</i> <i>Floor -1</i>	<b>PLENARY SESSION</b>
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Chairs: *Ioan Lasca*, 'Carol Davila' Medical University, Bucharest, Romania  
*Andreas Foustanos*, Iasso Hospital, Athens, Greece  
*Zsolt Révész*, St. Stephen's Hospital, Budapest, Hungary

Keynote lectures

- 30' **General and surgical management of soft tissue giant tumors**  
*Ioan Lasca*  
 'Carol Davila' Medical University, Bucharest, Romania
- 30' **25 years experience – SMAS platysme procedure in facelift**  
*Andreas Foustanos*  
 Iasso Hospital, Athens, Greece

<b>16.30–16.45</b> <i>Room Jasmine</i> <i>Floor 0</i>	<b>COFFEE BREAK</b>
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<b>16.45–18.30</b> <i>Star Auditorium</i> <i>Floor -1</i>	<b>PLENARY SESSION</b> <b>BREAST RECONSTRUCTION</b>
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Chairs: *Andrej Banic*, University Hospital Inselspital, Bern, Switzerland  
*György Tizedes*, University of Pécs, Hungary  
*Tiberiu Bratu*, Brol Medical Centre, Timisoara, Romania

Keynote lectures

30'

**Immediate and later breast reconstruction**

*Andrej Banic*

University Hospital Inselspital, Bern, Switzerland

20'

**Breast reconstruction with DIEP-flap: single center experience with more than 650 flaps**

*Christoph Andree*

Sana-Hospital, Düsseldorf, Germany

15'

**Breast reconstruction using double DIEP and modified combined flaps**

*György Tizedes, G. Pavlovics, Z. Knausz, Z. Kádár, S.G. Sajjadi, B.G. Kovács, L. Marjas*

University of Pécs, Hungary

20'

**Breast augmentation revisions**

*Tiberiu Bratu, Grujic D., Grujic Lj., Olariu D.*

Brol Medical Centre, Timisoara, Romania

20'

**Discussion**



<b>08.30–13.30</b> <i>Registration desk</i> <i>Floor 0</i>	<b>REGISTRATION</b>
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<b>09.00–11.00</b> <i>Star Auditorium</i> <i>Floor -1</i>	<b>PLENARY SESSION</b> <b>AESTHETIC SURGERY OF THE BREAST II.</b>
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Chairs: *Gusztáv Gulyás*, National Institute of Oncology, Budapest, Hungary  
*Christoph Andree*, Sana-Hospital, Düsseldorf, Germany  
*Toma Mugea*, Oradea Medical University, Cluj-Napoca, Romania

- 20' **Correction of tuberous breast with implants**  
*Christoph Andree*  
Sana-Hospital, Düsseldorf, Germany
- 15' **Breast asymmetry**  
*Gusztáv Gulyás*  
National Institute of Oncology, Budapest, Hungary
- 8'+2' **About small tubular breasts**  
*Alfréd Traub*  
Aura Aesthetics International, Budapest, Hungary
- 25' **Secondary breast augmentation: what you need to do in each case**  
*Javier De Benito Mora*  
De Benito Institute, Barcelona, Spain
- 8'+2' **Complications of endoscopic transaxillary breast augmentation in our practice in the last 15 years**  
*Tibor Balajthy*  
New Contour Plastic Surgery, Budapest, Hungary
- 8'+2' **Breast assessment score – a new method of clinical evaluation and implant selection for breast augmentation**  
*Toma Mugea*  
Oradea Medical University, Cluj-Napoca, Romania

8'+2'

**Implant rupture – MRI in breast implant follow-up**

*Ilona Polyák, Huba Bajusz, Éva Makula*

St. Gellért Private Clinic, Szeged, Hungary

20'

**Discussion**

**11.00–11.30**

*Room Jasmine  
Floor 0*

**COFFEE BREAK**

**11.15–12.00**

*Room Boróka I.  
Floor 0*

**SATELLITE SYMPOSIUM**

Chair: *Ioan Lascar*, 'Carol Davila' Medical University, Bucharest, Romania

**Facial rejuvenation with Jalupro**

*Athanasios Fragkos*

**11.30–14.00**

*Star Auditorium  
Floor -1*

**PLENARY SESSION  
SURGERY OF THE EXTREMITIES II – RECONSTRUCTION**

Chairs: *Andrej Banic*, University Hospital Inselspital, Bern, Switzerland

*Zsolt Szabó*, Borsod-Abaúj-Zemplén County University Teaching Hospital, Miskolc, Hungary

*Alexandru Georgescu*, University of Medicine 'Iuliu Hatieganu' Cluj-Napoca, Romania

Keynote lecture on bariatric surgery

25'

**Postbariatric plastic surgery: our experience**

*Pavel Brychta, Hana Zimovčáková, Zuzana Jelínková,*

*Břetislav Lipový*

University Hospital Brno, Czech Republic; Private Clinic Riva, Brno, Czech Republic

Keynote lecture on face aesthetics

20' **7 variations of SMAS-manoeuvres in prosopoplasty to harmonize the face**

*Dimitrije Panfilov*

Olympic Clinic, Novi Sad, Serbia

**Surgery of the extremities II. – Reconstruction**

Keynote lectures

25' **Reconstruction of the lower extremity**

*Andrej Banic*

University Hospital Inselspital, Bern, Switzerland

15' **Soft tissue management and substitution on the upper limb**

*Zsolt Szabó*

Borsod-Abaúj-Zemplén County University Teaching Hospital, Miskolc, Hungary

15' **Anatomical, experimental and clinical considerations regarding the local/regional perforator flaps in limbs reconstruction**

*Alexandru Georgescu*

University of Medicine 'Iuliu Hatieganu' Cluj-Napoca, Romania

15' **Therapeutical attitudes in upper limb burn sequelae reconstruction**

*Ioan Petre Florescu, Silviu Marinescu, Giuglea Carmen, Mihai Ruxandra*

Emergency Clinical Hospital 'Bagdasar Arseni', Bucharest, Romania

Oral presentation

8'+2' **Graft on flap method for fingertip nail amputation**

*Dragos Zamfirescu, Ioan Lascar, Athanasios Fragkos, Corina Popoviciu, Andreea Bularda, Ion Zegrea*

'Carol Davila' Medical University, Bucharest, Romania

8'+2' **A seven years experience with distally based flaps of the leg**

*Emanuel Albu, Adrian Alexandru*

University Emergency Hospital, Bucharest, Romania

10' **Discussion**

**14.00**  
*Star Auditorium*  
*Floor -1*

**CLOSING OF THE CONGRESS**

**14.00–15.00**  
*Grand Hotel*  
*Széchenyi*  
*Restaurant*

**LUNCH**

**Saturday**

## ABSTRACTS INVITED PAPERS

### **Breast reconstruction with DIEP-flap: single center experience with more than 670 flaps**

*Christoph Andree*

Department of Plastic and Aesthetic Surgery, Sana-Hospital Düsseldorf, Germany

**Introduction:** The possibility of autologous breast reconstruction as an integral part of breast cancer therapy should be standard in breast cancer centers. This improves the opportunities of radical oncological surgery as well as the quality of life of the patients. Our department of plastic and esthetic surgery within the interdisciplinary breast cancer center Duesseldorf is specialised in the performance of DIEP – or fasciasparing TRAM-Flaps in patients seeking for primary and secondary breast reconstruction. Our experiences with more than 670 flaps since July 2004 are reported.

**Materials and methods:** Every patient searching for breast reconstruction was seen in the plastic surgery department. In almost every case the free microsurgical DIEP – or fasciasparing TRAM-flap was performed as the standard flap for autologous reconstruction from the lower abdomen. Prerequisite for the indication was sufficient abdominal tissue and no previous delay operation of the epigastric inferior vessels. Preoperative the fascia sparing TRAM was suggested to heavy smokers and very obese patients. The internal thoracic vessels were used as recipient vessels in every case. All anatomoses were stabilized by 2 ml of fibrin glue to prevent kinking of the vein.

**Results:** Between July 2004 and September 2009 sixhundred patients were operated in our plastic surgery department. In these patients 424 DIEP-flaps and 246 fasciasparing TRAM-flaps were performed. The average age was 50,6 years and the average BMI was 25,4. 600 women had a unilateral and 70 a bilateral reconstruction. There were 133 primary and 537 secondary reconstructions. The complication rate was for total flap loss 0,89%, 1,9% for partial flap loss (less than 20% of the flap), 4 % for successful microsurgical revisions, 2,9% for breast hematoma, 0,8% for abdominal hematoma, 2,2% for delayed wound healing, 0,4% hernias, 1,9% for abdominal bulging, 1.1% seromas and 3,5% fat tissue necrosis.

**Conclusions:** The free microsurgical DIEP – and fasciasparing TRAM-flaps are safe options for breast reconstruction and should be offered as a standard method in a breast cancer center. Therefore patients treated in our center have a weekly tumor board for clarification of oncological procedures as well as the opportunity to consult a plastic surgeon if a reconstruction is desired.

### **Postbariatric plastic surgery: our experience**

*Pavel Brychta, Hana Zimovčáková, Zuzana Jelínková, Břetislav Lipový*

University Hospital Brno, Czech Republic; Pricate Clinic Riva, Brno, Czech Republic

Bariatric surgery is the most effective method in the treatment of morbid obesity at present (by-passes of gastrointestinal tract, gastric banding).

Nevertheless, after the massive weigh loss the patients frequently do not feel "complete" in their skin and the role of plastic surgeon to correct the multiple deformities is therefore very important.

The present lecture is summarizing the experience of Department of Burns and Reconstructive Surgery University Hospital in BRNO and of Private clinic Riva in Brno, Czech republic with this kind of plastic surgery.

### **Correction of tuberous breast with implants**

*Christoph Andree*

Department of Plastic and Aesthetic Surgery, Sana-Hospital Düsseldorf, Germany

**Introduction:** For the patients – especially for the young women – the congenital deformity of the breast is a problem for the psychosocial development in the adolescence. Many operative procedures for correction of tuberous breast have been developed in the recent years. Most of these methods fail to address the issue of a contracting ring and makes not satisfactive stable results.

**Material and Methods:** Our surgical technique for the correction of tuberous breast deformities is a single stage approach with a combination of an augmentation with anatomical silicone implant for the hypoplasia of the gland. A form correction of the breast glandular tissue by an unfurling procedure is also done to correct the constricting ring that herniates the nipple-areola complex. We describe our surgical technique with suggestions for achieving optimal results.

**Conclusions:** Our combined treatment is based on the fact that the existing breast hypoplasia treated with a silicone implant would not correct the deformity of the breast gland. Therefore the simultaneous correction of the constricted breast gland is performed and gives the patients a long stable result in one single procedure.

### **25 years experience with aesthetic and reconstructive breast surgery**

*Henrique Cintra*

Ivo Pitanguy Insitute, Rio de Janeiro, Brazil

The author presents its personal experience with aesthetic and reconstructive breast surgery for the past 25 years.

New trends are always challenging the plastic surgeon to adapt its clinical approach. As a result we expect an evolution that should provide surgical techniques with less recovery time, more predictable and consistent results.

In the mid 80's the usual request was breast reduction and mastopexy, and for the reconstruction of more radical mastectomies the miocutaneous flaps were the best option.

Nowadays with earlier diagnosis, breast cancer surgical treatment is more conservative and so is the reconstructive approach. Tissue expanders and breast implants have been the most usual tools for reconstruction.

In aesthetic breast surgery we have experienced an increased request for breast augmentation and for larger implants. The new generation of cohesive silicone gel implants made it possible and we also could improve the association of mastopexy and breast augmentation with shorter scars and more natural reshaping.

We have adopted a surgical routine for breast augmentation that facilitates the implant's insertion and helps preventing infectious complications. We are presenting the long term results of this approach.

### **Combined surgical strategies extensive burns**

*Dan Mircea Enescu*

"Grigore Alexandrescu " Children's Emergency Hospital, Bucharest, Romania

**Rationale:** In the last 20 years in our center the number of in-patients with burns exceeded 15,000 consecutive cases. Every year over 300 patients are admitted with major burns according to the TBSA; most of the above cases are mixed deep burns that require specific and flexible surgical strategies, altogether with accurate intensive care, in order to ensure the best clinical outcome.

**Methods:** Retrospective study: 932 burn patients with TBSA over 20%BSA .We are analyzing the major burn cases admitted in the last 3 years (2006-2008), observing the following: age, sex, etiology of burn, TBSA, burn wound deepness, outcome, surgery (number of procedures), major complications, LOS, surgical strategy. We are comparing the clinical accuracy of burn wound deepness with the objective measurement of a Laser Doppler.

**Results:** 35% (325 patients) of the major burn cases included in the study were treated with early surgical approach. In most of the cases the auto graft and meshed auto graft were used, with good results. Graft take 100%. For the massive burns frozen allografts were used, in combination with auto grafts and cultured cells for the donor areas. The outcome of surgicalized burned patient was good. Comparing the early surgicalized patients (full thickness burns) with the patients that did not required early surgery (partial burns with mixed-deep intricate areas) we are describing a flexible surgical approach in order to ensure good survival rate, minimal general complications, good cosmesis, early rehabilitation.

**Conclusions:** an accurate and objective evaluation of burn wound deepness, an efficient reanimation and a flexible surgical approach, combining all the resources, techniques and tools available will ensure the best outcome to burned patients. In some cases early surgery is the best answer, in mixed –deep burns cautiously allowing the spontaneous healing of the partial burns while planning for surgery may be a good approach.

### **Therapeutical attitudes in upper limb burn sequelae reconstruction**

*Ioan Petre Florescu, Silviu Marinescu, Giuglea Carmen, Mihai Ruxandra*

Plastic Surgery Clinic, Emergency Clinical Hospital 'Bagdasar Arseni', Bucharest, Romania

Burns occur more frequently on hands and face and consequently the post-burn sequelae are more frequent on these areas. On hands and thoracic limbs in general, there are some areas where these sequelae occur more often: on the dorsum of the hand, web spaces, around nails, anterior surface of the elbow area, the axilla.

This paper intends to systemize the surgical and non-surgical treatment options available for these sequelae. This paper is based on the 15-year experience of the Plastic Surgery Department from the Bagdasar-Arseni Emergency Hospital. Although this thorough and systemized approach is more likely in benefit of residents and young specialists, we hope our more experienced colleagues will also find it useful.

Key words: hand post-burn sequelae, surgical treatment.

### **Anatomical, experimental and clinical considerations regarding the local/regional perforator flaps in limbs reconstruction**

*Alexandru Georgescu*

Clinic of Plastic Surgery and Reconstructive Microsurgery

University of Medicine "Iuliu Hatieganu" Cluj-Napoca, Romania

The simple or complex substance loss in the limbs continue to be a challenging task for reconstructive surgeons. The main needs of any reconstructive method are low or absent donor site morbidity, and the reconstruction by replacing like with like.

A variety of flap techniques were used in the attempt to achieve excellence in form and function. The most important breakthrough in reconstructive surgery was represented by the perforator flaps.

The perforator flap is a cutaneous or fasciocutaneous flap, vascularised by one or more perforator vessels, branches of main axial vessels of the body which pass through the muscular body or muscular septum. Because they are composed exclusively of skin and subcutaneous tissue, and are based only on small perforator vessels, their donor site morbidity is very reduced.



Initially, the perforator flaps were used only as free flaps. In the last years it was proved that also local/regional perforator flaps are reliable and safe in achieving the goals of limbs reconstruction.

Because these local/regional perforator flaps need a microsurgical dissection, but do not need microvascular sutures, they could be defined as “microsurgical non-microvascular flaps”.

Based on our anatomical and experimental studies, we will present some clinical applications of these flaps in both upper and lower limb reconstruction.

### **Breast asymmetry**

*Gusztáv Gulyás*

National Institute of Oncology, Budapest, Hungary

Asymmetry noticeably alters the beauty and harmony of the human body. This is especially true in the case of breasts. The plastic surgery procedure requires detailed plan and marking, sophisticated reconstruction of the footprint, mould and dermal cloak of the breasts.

The aetiology of breast asymmetry:

- congenital malformations
  - amastia, breast agenesis, hypoplasia
  - polymastia
  - supra numeric nipples
  - tubular deformity
  - pectus excavatum, pectus carinatum
  - Poland syndrome
  - Amazon syndrome
- surgical procedures
  - partial mastectomy
  - mastectomy
  - reduction mammoplasty
- tumours
- traumatic injuries
- radiation injury
- infection
- iatrogenous procedures, ex: paraffin injection

### **Breast asymmetry – forms of occurrence**

Discrepancy between the proportion of the body and that of the breasts. Proportional difference between the size of the human body and the size of the breasts.

### Asymmetry in volume of the breasts

If the difference in volume exceeds 10 %, the asymmetry can only be corrected with reconstructive surgery.

### Asymmetry due to deformities of breast shape

- Tubular deformity,
- Scar adhesion
- Radiation injury

### Asymmetry and deformity of the nipple and areola

The shape, diameter and location of the nipples can be different. Nipple asymmetry can manifest in protrusion or as in inverted nipple.

### Asymmetry of the height of the submammary fold

The submammary fold can be higher or lower than the line of opposite breast.

### Asymmetry due to different types of chest wall deformities

Pectus excavatum and pectus carinatum deform the footprint and the mould of the breast.

### General guidelines for correcting breast asymmetry

**Footprint of the breast:** during symmetrisation surgery, the horizontal and vertical diameter of the base, as well as its circumference, must be the same on both sides. A decrease in the vertical diameter indicates ptosis. Changes in the horizontal diameter are related to decreased or increased projection<sup>1</sup>.

**Breast mould:** the cones, as well as the volume of the breast, are defined by the breast parenchyma. Breast parenchyma can be modelled and shaped into a cone. Equalising the volume of asymmetric breasts by asymmetric augmentation requires preoperative volume determination by MRI imaging.

**The skin of the breasts:** the elasticity of the skin, and the connection of the skin to the parenchyma are all factors that influence the outcome of the surgery<sup>2</sup>. A deformity of the bony chest wall alters the basic dimensions of the breast and affects the shape of the parenchyma.

### Reconstruction of the breast volume, size, shape and location of nipple areola complex

Equalising the volume of asymmetric breasts by augmentation requires preoperative volume determination by MRI imaging. Circumvertical mammoplasty is suitable for

changing the position of the nipple in any direction and reduces the length of the vertical incision 3.

### **Reconstruction of asymmetry due to capsular contraction and equalizing the breast irregular surfaces**

Capsular contracture, can be corrected with 3D architectural capsuloplasty. The surface of the dome can be enlarged about 30-35 %.

Asymmetric contour deformities, irregular surfaces, depressions can be reconstructed with microstructural fat grafting.

**Key words:** breast asymmetry, periareolar mastopexy, architectural mammoplasty, microstructural fat grafting

### **References:**

1. Blondeel, P, Hijjawi J, Depypere H, Roche N, Van Landuyt K, Shaping the Breast in Aesthetic and Reconstructive Breast Surgery: An Easy Three-Step Principle. *Plast. Reconstr. Surg.* 123(2):455-462, 2009.
2. Gulyás G, Mammoplasty with a Periareolar Dermal Cloak for Glandular Support. *Aesth. Plast. Surg.* 23:164-169, 1999.
3. Gulyás G, Combination of the Vertical and Periareolar Mammoplasty. *Aesth. Plast. Surg.* 20:369-375, 1996.

### **Dynamic patterns in mammary elevation**

*Marcelo Irigo*

Italian Hospital of La Plata, Argentina

Static marking patterns involve “standard” measurements. Yet, surgeons do not make an incision without previously evaluating these measurements with dynamic maneuvers, or considering skin laxity, patient’s age, and personal or pathological background.

Dynamic maneuvers allow more ductility when planning, optimize the resolution and offer a more secure way to perform mammary elevation.

### **Prophylactic mastectomy, recent trends**

*Marcelo Irigo*

Italian Hospital of La Plata, Argentina

Nowadays, we should talk about risk-reducing mastectomy since we know that even the experts leave about 3-5 percent of the remaining mammary gland.

The aim of this presentation is to demonstrate that we should adopt an integral multi-

disciplinary treatment involving psychologists, geneticists, mastologists and plastic surgeons.

Let us bear in mind that this therapeutics involves high psychological implications as well as mutilation, which is why we should document and verify the pathological alterations before making any decision that could affect body image.

There is the possibility of providing immediate breast restitution.

### **Robotics, robotic surgery, telerobotic surgery, telepresence and telementoring in plastic surgery**

*Ioan Lascar, Dragos Zamfirescu*

'Carol Davila' Medical University, Bucharest, Romania

The use of robotics has been emerging for approximately 80 years. Although it has been over 20 years since the first recorded use of a robot for a surgical procedure, the field of medical robotics is still an emerging one that has not yet reached a critical mass. In this time, much progress has been made in integrating robotic technologies with surgical instrumentation, as evidenced by the many thousands of successful robot-assisted cases. Robotic surgery has demonstrated some clear benefits. Advantages conferred by the da Vinci robot include elimination of tremor, scalable movements, fully articulating instruments with six degrees of spatial freedom, full and dynamic control over the operating camera, allowing variable positioning and the ability to scale down movements and a dynamic three-dimensional visualization system. Drawbacks include the initial high cost, lack of haptic feedback, decreased participation of the first assistant, lack of widespread availability and the absence of true microsurgical instruments. It remains to be seen where these benefits will outweigh the associated costs over the long term. In the future, surgical robots should be smaller, less expensive, easier to operate, and should seamlessly integrate emerging technologies from a number of different fields. The technological advances of these telerobots now permit telepresence surgery from remote locations, even locations thousands of miles away. In addition, telepresence permits the telementoring of novice surgeons who are performing new procedures by expert surgeons in remote locations. Nonetheless, these technologies are still in an early stage of development, and each device entails its own set of challenges and limitations for actual use in clinical settings.

### **Proximal and distal nerve transfers**

*Ioan Lascar, Dragos Zamfirescu, Oana Vermesan, Serban Popescu, Athanasios Fragkos, Andrei Stefanescu, Ruxandra Sinescu, Bogdan Maciuceanu*  
'Carol Davila' Medical University, Bucharest, Romania

Nerve transfers or neurotizations are becoming used increasingly for repair of severe nerve injuries, especially brachial plexus injuries, where the proximal spinal nerve roots have been avulsed from the spinal cord, but also in distal nerve lesions. The procedure essentially involves the coaptation of a proximal healthy but less valuable nerve or its proximal stump nerve (donor) to the distal denervated (recipient) nerve through irreparable damage to its nerve, so that the latter's end-organs will be reinnervated by the donated axons. Cortical plasticity appears to play an important physiologic role in the functional recovery of the reinnervated muscles. This article provides the indications for nerve transfer, principles for their use, and a comprehensive survey on various intraplexal and extraplexal, or forearm and hand nerves that have been used for transfer to repair clinical nerve injuries. A wide variety of potential donor nerves are available including the intercostal nerves, the spinal accessory nerve, the phrenic nerve, the ipsilateral medial pectoral nerve, partial ulnar nerve, partial median nerve, thoracodorsal nerve, radial nerve to the triceps, and the ipsilateral C7 or the contralateral C7 nerve roots. Treatment strategies include avoidance of interposed nerve grafting, isolated motor recipient nerve, early transfer, neurorrhaphy close to target motor end plates, and similar diameter between donor nerve and recipient nerves

### **Tissue engineering research and its application in plastic surgery**

*Wei Liu, Yilin Cao*

Department of Plastic and Reconstructive Surgery,  
Shanghai 9th People's Hospital, Shanghai Jiao Tong University School of Medicine  
National Tissue Engineering Center of China

Plastic surgery deals with tissue repair by tissue transfer technique, which usually leads to donor site morbidity or ugly appearance. This surgical repair model of "repairing tissue defect by creating another defect" might be replaced by tissue regeneration using a tissue engineering approach. The common types of tissues that need to be repaired in plastic surgery include bone, tendon, skin, cartilage, blood vessel and peripheral nerve. By applying the tissue engineering principle to tissue regeneration, it is possible to reconstruct these tissues either in vitro or in vivo. This presentation will provide an overview of tissue engineering and its applications from our center in tissue regeneration and repair of the defects created in animal models. Furthermore, we will also briefly introduce the clinical trial of engineered bone.

## **Sex reassignment surgery in transsexual patients**

*Stan Monstrey*

Ghent University Hospital, Belgium

Transsexual patients have the absolute conviction of being born in the wrong body and this severe identity problem results in a lot of suffering from early childhood on. Although transsexualism is a phenomenon of all times and all places, its exact etiology is still not fully understood: most probably the disorder is a result of a combination of various biological and psychological factors. As to the treatment of this discrepancy of mind versus body, it is universally agreed that the only real therapeutic option consists of 'adjusting the body to the mind' (the so-called 'gender reassignment') rather than trying to 'adjust the mind to the body' with psychotherapy which has been shown to be of no use at all to alleviate the severe suffering of these patients.

Gender reassignment usually consists of a diagnostic phase (+mental health professional), followed by hormonal therapy (+endocrinologist), a real life experience and at the end the gender reassignment surgery itself.

In male-to-female patients the surgical treatment can consist of facial feminizing surgery in a first operation then followed by a breast augmentation and a clitoro-vaginoplasty, both of which are usually performed in the same surgical procedure. Additionally, a reduction of the Adam's apple if necessary combined with vocal cord surgery can be performed. Nowadays, more attention is put on the aesthetic result, especially by creating a natural and functional clitoris including a clitoral hood.

In female-to-male transsexuals the operative procedures are usually performed in different stages: first the subcutaneous mastectomy which is often combined with a hysterectomy-oophorectomy (endoscopically assisted). The residual scars on the (now male) thorax depend on the excess and the elasticity of the breast skin. In the next operative procedure we combine a vaginectomy, a reconstruction of the horizontal part of the urethra and a scrotoplasty with a penile reconstruction usually with a radial forearm flap (or with a pedicled ALT flap as our second choice). After about one year, a penile (erection) prosthesis and testicular prostheses can be implanted when sensation has returned to the tip of the penis.

This presentation will give an overview on the state-of-the-art of the whole spectrum of gender reassignment surgery in MtF and FtM transsexuals mainly focusing on the results obtained in longterm follow-up studies.

## **7 variations of SMAS-manoeuvres in prosopoplasty to harmonize the face**

*Dimitrije Panfilov*

Olympic Clinic, Novi Sad, Serbia

Nowadays elderly persons are still active not only privately but also socially and professionally

Since Vladimir Mitz from Paris defined SMAS-layer 1976 we usually do biplanar facelift In is:

- Facial harmony,
- i.v. analgosedation with local anaesthesia
- shorter scars and shorter recovery
- outpatient procedure.

In the last 20 years we have learned more about faces than in the last 20 000 years. Possibilities and expectations of our patients have changed appropriately. Modern plastic surgeon has an armatorium of over 30 different procedures to harmonize, enhance and not only rejuvenate the face. As all faces are unique and each surgery should have an individual recipe and attempt. The media would call this combination of procedures: face-styling. Rhytidectomy is only the excision of folds and wrinkles. We suggest the new term for the new age: PROSOPOPLASTY (prosopon – means in Old Greek: face). Analogically to blepharoplasty, rhinoplasty, mastoplasty or falloplasty, then beautifying rearrangements of the featural structures should consequently be called prosopoplasty. An analysis of the face must precede the planning of an operation, at the centre of which should be the patient's wishes. The result should be a younger looking patient with more harmonic, more beautiful features and with more dynamic facial plays. The face is a fascinating three-dimensional dynamic mosaic work. Plastic surgery patients will regain their social and erotic appeal by reestablishing their self-esteem. We are able now to analyse the face, to understand the mimic dynamics, to add beauty and harmony to different mimetic units in different layers of depth, to improve the facial outlook. Our patients do not want to look like somebody else. They just want to look better.

We discuss: rhytidoplasty by blunt dissection without need for haemostasis, technique of "spreading scissors" and "grasping forceps", proof of SMAS and platysma mobility, SMAS plication, SMAS resection, advancement of Bichat's fat pad, advancement of jawl mini-flap, high SMAS flap elevation, horizontal snail SMAS flap for "contouroplasty", vertical single snail SMAS flap, vertical double snail SMAS flap, tricuspidal SMAS flap to triple the malar prominence, SMAS elevation with the longest rhinospeculum, paraoral K-point-release to avoid dynamic "face-lift.stigma", platysma back-cut, submental liposuction etc.

For a long time the only aim of facial aesthetic surgical work was tightening of the skin, to reduce wrinkles and folds. Today, facelift is not only a facelift, but it is the surgical make-over of the face: harmonizing, symmetrizing, beautifying. Overstretched skin with "surgery looks" and "face-lift-stigmata" with visible scars, dislocated hairline, flattened or scary tragus, elongated almost amputated earlobes and retroauricular steps of hairline are OUT.

## **Blepharoplasty, transconjunctival approach**

*Alberto Rancati*

University of Buenos Aires, Argentina

**Introduction:** Lower eyelid blepharoplasty is often the treatment for patients who have bags or puffiness under the eyes. This deformity is frequently a result of pseudo-herniation of the orbital fat. Skin laxity and rhytides may contribute to the overall perception of the deformity. Blepharoplasty rejuvenates and restores the lower lid area. Traditionally, the anterior transcutaneous approach is used for this procedure. This technique provides excellent exposure to the orbital fat, and the resultant scar is minimal. Unfortunately, the approach is associated with many complications.

Lower eyelid malposition is a feared complication after lower lid blepharoplasty and may be associated with scleral show and ectropion of various degrees. These complications tend to limit the success of the transcutaneous blepharoplasty technique. To this end, the use of a posterior transconjunctival technique has been explored. By avoiding scarring at the anterior lamella and lower eyelid septum, retraction of the eyelid and ectropion can be avoided. Accordingly, the posterior transconjunctival approach has gained in popularity and acceptance. The transconjunctival incision through the fornix seems to offer less risk for postoperative lid malposition and provides for the best exposure to the orbital fat.

**History of the Procedure:** Tessier reported his use of the transconjunctival approach for craniofacial procedures in the 1970s.<sup>1</sup> He had been applying this approach for congenital abnormalities and trauma for almost 20 years when he presented his findings. In the 1920s, Bourget first described the transconjunctival approach in the French literature as a method for removing herniated orbital fat.<sup>2</sup> Tessier adapted the technique to approach the orbital floor without leaving a visible scar. He found the standard periorbital incisions to be limited to specific maneuvers and theorized that the transconjunctival technique was truly the most logical approach to the orbital walls. Transconjunctival approaches to the lower eyelid have become very popular. In combination with other techniques, the application can be expanded to address skin laxity and rhytides as well as pseudoherniated fat.

**Problem:** The goal of blepharoplasty of the lower lid is to rejuvenate and thus restore the eyelid. This is achieved with special attention to lateral canthus definition and to eyelid position and function. Excess fat (pseudoherniated orbital fat) is removed, and excess skin is then addressed. Excess fat in this region may arise from a hereditary pseudoherniation of the fat or from the effects of aging. Additionally, systemic diseases, including allergies, cardiac or renal disease, liver cirrhosis, and hyperthyroidism, may contribute to puffiness around the lower eyelid.

A genetic condition known as blepharochalasis is another potential disorder leading to this deformity. Blepharochalasis is a familial disorder that results in chronic eyelid edema, which can progress to localized tissue breakdown and fat herniation. Clearly,



these conditions are separate from the pseudoherniation observed in the typical patient evaluated for cosmetic blepharoplasty, and they must therefore be excluded. The ideal patient is young and has excess pseudoherniated fat but minimal skin laxity. Older patients may benefit from the transconjunctival approach combined with a pinch excision of excess skin or a resurfacing technique such as laser resurfacing or deep chemical peel.

**Pathophysiology:** As humans age, the orbital septum loses its structural integrity and consequently fails to contain the orbital fat. The supporting structures of the orbit also become lax, allowing settling of the globe, which contributes to fat protrusion. Although the fat remains posterior to the orbital septum, the septum/fat complex bulges forward, giving the illusion of herniated fat (hence the term pseudoherniation). The transconjunctival approach delivers the fat without disrupting the orbital septum and removes the excess fat.

**Presentation:** Candidates for blepharoplasty typically present with fat herniation and are unhappy with the bags, puffiness, or dark circles under their eyes.

**Indications:** Assess candidates for blepharoplasty by evaluating pseudoherniated fat, excess eyelid skin, skin laxity, and rhytides. Because the transconjunctival approach is best for removal of pseudoherniated fat, patients who have fat pseudoherniation without additional skin laxity or orbicularis oculi hypertrophy are the best candidates. Because the technique has a lower risk of resultant scleral show and eyelid retraction (as with the transcutaneous approach), patients with pseudoproptosis and lower eyelid bulges are eligible for the transconjunctival approach. Additionally, patients with retracted eyelids from Graves disease are also good candidates for transconjunctival blepharoplasty.

The transconjunctival approach is a better option in patients who express concerns about scarring with the transcutaneous approach. Although the resultant transcutaneous scar is almost imperceptible, depigmentation at the scar line sometimes occurs in darker-skinned individuals. The transconjunctival approach obviates this possibility.

**Relevant Anatomy:** The lower eyelid is composed of 3 lamellae. At the level of the tarsus, the posterior lamella consists of the conjunctiva and the tarsus. Inferior to the tarsus, the posterior lamella is composed of conjunctiva, the retractor muscle, and the capsulopalpebral fascia. The middle lamella fuses with the posterior lamella at the tarsal plate and is composed of the orbital septum. The anterior lamella is the orbicularis oculi muscle and overlying skin. The orbital septum is a central component of the lower eyelid. The orbital septum inserts along the inferior aspect of the tarsus and extends inferiorly to its insertion at the arcus marginalis at the orbital rim. The orbital septum confines the fat pads. If the septum is weak, either congenitally or from aging, pseudoherniation of the orbital fat can begin.

Three fat compartments apparently exist: lateral, middle, and medial. Although these compartments are more practical than anatomical, the medial fat pad is separated from the middle pad by the inferior oblique muscle and the arcuate expanse dividing the middle from the lateral fat pad. The medial fat pad is whiter than the middle and

lateral pads. The middle fat pad is more yellowish and is often removed in pieces, whereas the medial and lateral pads are often removed intact. In repose, the position of the lower eyelid conjunctiva is vertical at the lid margin and horizontal at the fornix. The average depth of the fornix from the lid margin is 12–14 mm, and the average height of the tarsal plate is approximately 4.5 mm.

**Contraindications:** Transconjunctival blepharoplasty is a technique that best addresses pseudoherniated orbital fat. In the patient with minimal fat pseudoherniation, this approach may not be best. In patients with significant skin laxity and redundancy, and in patients with hypertrophic orbicularis oculi muscle, the transconjunctival approach can offer little benefit unless combined with an adjunct procedure.

As with all blepharoplasty techniques, transconjunctival blepharoplasty is relatively contraindicated in the patient with severe lower eyelid laxity unless accompanied with lid-tightening procedures.

### **Mastopexy without implants – autoprosthesis**

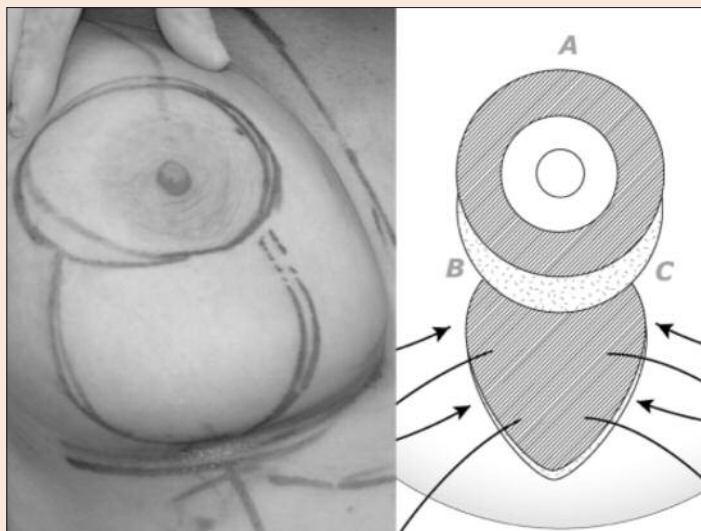
*Alberto Rancati*

University of Buenos Aires, Argentina

A technique using a posteriorly based dermoglandular flap as an augmentation of the superior hemisphere of the breast combined with a periareolar mastopexy and vertical mastopexy is presented. The advantages of combining a periareolar mastopexy, in terms of reducing the length of the vertical scar and preventing areolar distortion, are explained.

Using the inferior portion of the breast has been previously described by Graf et al, using a weaving technique through the pectoralis major muscle. The technique of using a posterior parenchymal pedicle as an autoaugmentation combined with a vertical mastopexy has also been described by Botti. In that technique, the periareolar skin excision was designed according to the Lejour pattern. The technique described in the present paper differs, using a periareolar mastopexy so that the vertical excess can be captured in the larger periareolar skin excision, limiting the vertical skin excision. In addition, the periareolar suture stabilizes the circular shape of the areola, thereby preventing areolar distortion and traction into the vertical closure, and avoiding tension and compromised vascularity of the areola.

The circumference of the periareolar skin is roughly equal to three times the diameter (eg, if the diameter of the areola is 8 cm then the circumference is 24 cm). For an ideal diameter of 4 cm, the new areolar circumference is 12 cm. If the horizontal elliptical excision in the inferior portion of the breast removes 6 cm to 8 cm of the inferior portion of the periareolar skin excision (Figure 1).



**Technique:** The patient should be standing with the arms at the side. A line is drawn from the suprasternal notch (SSN) to the xiphoid in the midline, and the IMC is outlined. The midline of the breast is marked usually from a point midway between the SSN and the acromioclavicular joint, or approximately 8 cm lateral to the SSN. This line is continued inferiorly across the IMC line.

The postoperative level of the areola is determined by grasping the skin at three o'clock and nine o'clock, transposing the areola to the middle of the breast mound until the inferior mammary skin is taut. A mark is made at the superior point of the transposed areola on the superior skin of the breast. The new nipple-areolar complex (NAC) location is confirmed by measuring the acromio-olecranon distance and then dividing it in half, placing the nipple at a point 4 cm below the midpoint. The new position is further checked by evaluating its relationship to the IMC and by measuring the distance from the SSN to the superior point of the neoareola, which should be 15 cm to 17 cm. The new location is visually evaluated as a final check.

The same point is transposed to the midline of the opposite breast using a gynecological caliper, placing one limb at the SSN and the other at the site of the superior point of the neoareola.

Surgery is usually performed under general anesthesia to avoid extensive infiltration of the breast, which may affect intraoperative evaluation of size and shape.

The patient is placed on an operating table that is capable of elevation of the back to a full 90°. The arms are placed at 90°, wrapped to the arm boards. The back is flexed at approximately 30° at the start of the procedure.

The procedure is begun with circumcision of the areola using a 38 mm 'cookie-cutter', with the breast supported laterally in a relaxed position. The ideal diameter is 40 mm, so the author often cuts around the outside of the mark, because a 40 mm pattern is currently unavailable.

The remainder of the pattern is then de-epithelialized. Using the cutting cautery, a vertical incision is made at the medial aspect of the lower breast marking, inferior to the areola, down to the underlying deep fascia. A further incision is made in an oblique direction at the lateral edge of the inferior ellipse laterally to preserve the blood supply to the inferior gland.

The skin at the inferior portion of the marking is undermined to the IMC, leaving a thin layer of subcutaneous fat measuring approximately 3 mm. Superiorly, the cut extends across the inferior edge of the areola, leaving a 2 cm cuff inferior to the areolar margin. The incision is then deepened down to the underlying deep fascia deep to the areolar complex, and the superior breast is partially undermined in the retromammary space in a medial superior direction.

The NAC is mobilized on a superior pedicle by making two vertical incisions extending to the superior edge of the deepithelialized skin, leaving an intact pedicle between 10 o'clock and two o'clock superiorly. The pedicle thickness is at least 2 cm. Undermining is kept to a minimum to achieve mobilization of the NAC. Once the NAC is mobilized, a 4-0 monofilament glycomer suture is placed at the 12 o'clock position, fixing the NAC in its new position.

The inferior gland is then transposed deep to the NAC and sutured with one or two 2-0 monofilament polyglyconate sutures to the deep fascia in the medial superior portion of the breast at about the level of the third intercostal space.

Once the stitch is placed, a skin hook is positioned at the superior pole, and the inferior limbs are closed from the bottom up with 3-0 monofilament polyglyconate suture to the dermis or, alternatively, 3-0 nylon sutures to tailor-tack (Figure 2).



Once tailor-tacking is completed, three horizontal marks are drawn across the inferior limb and numbered. The sutures are then removed from above downwards, the redundant skin is excised with a number 10 blade and dermal sutures of 3-0 monofilament polyglyconate are placed. When the inferior portion is reached, the dog-ear is excised

in a vertical, a 'J' or an 'L' shape with the limb coursing laterally, or occasionally with a short horizontal scar.

The dog-ear excision is performed last, after closure of the NAC.

The NAC is closed with eight interrupted 4-0 monofilament glycomer sutures spaced evenly around the circumference of the areola. A 3-0 polyester suture SH taper needle is placed around the NAC and tied in the mid-lateral position around a 38 mm cookie cutter. The knot is soaked in povidone iodine before cutting. Final closure is performed with further interrupted 4-0 monofilament glycomer sutures to bury the purse-string knot and then finally with a subcuticular suture of the same material.

The inferior limb is closed with deep 3-0 monofilament polyglyconate suture followed by interrupted and subcuticular 4-0 monofilament glycomer sutures. It is vital that this last suture begins or ends at least 1 cm below the point at which the inferior limb meets the areola margin so as to avoid distortion of the areola as it is tightened when shortening the distance of the vertical limb. Before this last suture is placed, final trimming of the inferior dog-ear is performed. The dog-ear may be left until the opposite breast is closed; then, final adjustment can be performed on both breasts at the end of the procedure.

The final shaping and closure of the breast following the suture of the gland in the retromammary space is performed with the patient in the seated position at 60° to 90° of elevation, blood pressure permitting. No drains are used.

### **Nasal septal reconstruction in rhinoplasty**

*Ödön Rezek*

Semmelweis University Budapest, Hungary

The bony and cartilaginous nasal septum plays an extremely important role in the static support of the nasal framework. Its shape, length, deformities affect the appearance of the whole nose, and have functional importance as well. Septal surgery often means the key of a successful rhinoplasty procedure.

The author explicates the technical facilities, outlines the algorithm of decision making in planning septorhinoplasty operations. Functional and aesthetic surgery of the deviated nose discussed in details. Total septal reconstruction, the use of autogenous ear and rib cartilage grafts are illustrated by clinical cases.

### **A study regarding the use of nervous conduits in nerve regeneration**

*Mihai Ruxandra, Silviu Marinescu, Ioan Petre Florescu, Giuglea Carmen*

Plastic Surgery Clinic, Emergency Clinical Hospital 'Bagdasar Arseni'

Nowadays it is unanimously accepted in the specialty scientific medical world that an axon physical guidance is vital for the repair of the injured peripheral nerves. Nerve

guidance channels serve to axon growing from the proximal to the distal part. They represent a diffusion pathway for the growing factors secreted by the injured nerves and they also decrease scar tissue.

The researches done in this domain were axed on the use of natural and synthetic materials for nervous conduits (NC) manufacture. Lately the researches were centred on the combination of more materials and bio-molecules in order to develop new composite materials that can stimulate nervous regeneration. It was demonstrated that for an efficient regeneration of injured peripheral nerves the presence of neurotrophic factors (neurotrophines, neuronal growing factor, fibroblastic growing factor, etc) and cell adhesion molecules is very important.

To enhance the performances of the biomaterials used for the manufacture of NC, it was also tested the effect of the introduction of Schwann cells and other cells in these structures.

The biocompatible biomaterial domain is very dynamic, the researches leading to the achievement of new more efficient types. These will improve the prognosis of nerve sections with loss of motor, sensory, and both functions. Nerve injuries are often the result of trauma, thermic and chemical burns, axonal or myelinic degeneration and acute compression. Peripheral nerve regeneration by mean of efficient NC became a priority for plastic surgeons, neurologists and neurosurgeons. NC achievement in a shape that will ensure patients' rapid and precise healing is a challenge for biomaterial research domain.

Key words; nervous conduits, stem cells, nerve regeneration.

### **Functional reconstruction in plastic surgery**

*Peter M. Vogt*

Department of Plastic, Hand- und Reconstructive Surgery,  
Hannover Medical School , Germany

One of the main goals of plastic surgery is reconstruction of the function of extremities, especially in the hand. Indications include reconstructable nerve lesions, posttraumatic or postoncological loss of muscles and tendons or congenital/obstetrical lesions and disease of peripheral nerves as well as congenital muscle disease and malformation.

The term functional reconstruction implies replacement of irreparably lost muscle function by transposition of intact tendon-muscle units. The main principle thereby consists of functional transfer of antagonistic muscle tendons.

Up until now a wide spectrum of options exist for functional reconstruction especially in the extremities. Examples include restoration of shoulder abduction, elbow lexion, key grip reconstruction in the hand, knee extension and foot elevation and eversion. Especially in the paralyzed hand techniques have to be applied to the patients based on individualized concepts. The lecture gives an overview on the current status of restoration of function in plastic surgery.

### **Limb salvage in electrical burns using microsurgical techniques**

*Peter M. Vogt*

Department of Plastic, Hand- und Reconstructive Surgery  
Hannover Medical School, Germany

Burns resulting from electric current are among the most devastating of injuries. Although electrical burn injuries account for only 3-5% of all admissions in burn centres, electrical burn is associated with multiple and complex operative procedures and high amputation rates. When the body is affected by high power voltage injuries the muscle carries the predominant electrical current. Nerves and blood vessels show enhanced conductivity. At more than 1000 Volts high voltage accidents are devastating injuries while low voltage are less severe inducing mostly local damage. Joule heating and electroporation account for the main mechanisms of injury.

Due to the devastating characteristics of this injury a high risk of limb loss is involved. The upper extremity is the most frequently involved region of the body in electrical burn injuries.

A valuable option for salvage of an extremity may be microsurgical free flap transfer. However a high rate of flap loss reaching up to 20% has to be expected especially in the acute phase.

In general muscle flaps preferred in the acute phase in order to enhance vascularity in the extremities.

Alternatively pedicled flaps are useful particularly in the upper extremity and if preservation of the extremity is in doubt. The treatment of electrical injury requires sound clinical judgement and the distinction between thermal vs. high voltage deep tissue destruction. Despite high reconstructive efforts including microsurgical flap transfer very often only minimal residual extremity function can be expected and preservation of an extremity can already be considered as a success.

Overall the golden rule of „life for limb“ should always be kept in mind.

The lecture will give an overview on plastic surgical options and success rates in the acute and secondary reconstruction after electrical injuries.

### **Graft on flap method for fingertip nail amputation**

*Dragos Zamfirescu, Ioan Lascar, Athanasios Fragkos, Corina Popoviciu, Andreea Bularda, Ion Zegrea*

'Carol Davila' Medical University, Bucharest, Romania

The concept of the graft-on flap method is that the palmar side of the fingertip is reconstructed by a palmar finger flap and the nail bed is grafted on the flap for reconstruction of fingertip deformity caused by amputation at the nail bed level. This method was proposed by Yuichi Hirase from Japan in 2009. The indication for this

method is fingertip amputation at the nail bed level. We apply this method at 2 fingertips as an emergency. The palmar side of the fingertip is constructed with an oblique triangular flap or volar advancement flap. The nail bed with bone is harvested from the amputated fingertip segment, and is grafted on the flap as a composite graft with bony fixation. The concept of graft-on flap is very versatile for fingertip nail reconstruction.

### **Reconstructive transplant surgery and methods to induce immunologic tolerance in composite tissue transplantation**

*Dragos Zamfirescu<sup>1</sup>, Ioan Lascar, Marco Lanzetta<sup>2,3</sup>*

<sup>1</sup>'Carol Davila' Medical University, Bucharest, Romania

<sup>2</sup>Canberra University, Canberra, Australia

<sup>3</sup>Italian Institute for Hand Surgery, Monza, Italy

Recent advances in the field of reconstructive surgery and immunology resulted in increased interest in composite tissue allograft (CTA) transplantation. Up to date, more than 100 CTA transplants have been reported in humans. The introduction of composite tissue allograft transplants into clinical practice has become reality because of well-established microsurgical techniques. However, the success of composite tissue allograft transplants is still dependent on chronic immunosuppression. Clinically applicable protocols for tolerance induction in composite tissue allograft would eliminate the need for lifelong immunosuppression. The major goal of transplantation immunology is to develop immunologic nonresponsiveness (tolerance) to allograft transplants and long-term drug-free survival. A number of protocols have been designed to develop tolerance in experimental systems; however, none of them has been translated to clinical transplantation. In this review, the authors discuss current knowledge and strategies used for tolerance induction and the role of passenger leukocytes for allograft acceptance and rejection. Tolerogenic properties of dendritic cells and immunotherapy with regulatory T cells are introduced as having future potential for tolerance induction in solid organ and composite tissue allograft transplants. The induction of donor-specific tolerance would generate new options for the application of composite tissue allograft transplants and may be considered as a future direction in plastic and reconstructive surgery.

### **Simultaneous hemiface and vascularized bone marrow transplantation in rats**

*Dragos Zamfirescu, Ioan Lascar, Mihail Climov*

'Carol Davila' Medical University, Bucharest, Romania

Clinical application of composite tissue allograft transplants opened discussion on the restoration of facial deformities by allotransplantation. The authors introduce a hemi-



facial allograft transplant plus a femur transplantation as a vascularized bone marrow model to investigate the rationale for the development of functional tolerance across the major histocompatibility complex barrier. Ten rats in two groups were studied. The composite hemifacial allotransplantations including the ear and scalp and femur allotransplantation were performed between Lewis-Brown Norway (RT11+n) and Lewis (RT11) rats. Hemiface allotransplantation alone controls (n = 5) and both hemiface and femur allograft (n = 5) were treated with cyclosporine A 16 mg/kg/day during the first week; this dose was tapered to 2 mg/kg/day over 4 weeks and maintained at this level thereafter. The number of rats that reject under cyclosporine A monotherapy protocol and the interval free of rejection was significantly different between the two groups, demonstrate the contribution of the superior microchimerism levels in induction of a partial tolerance in the group with simultaneous hemiface and vascularized bone marrow transplantation.

### **New concepts in adipose tissue physiopathology**

*Michele L. Zocchi*

Italy

The adipose tissue is a real organ and is necessary for life.

Trace of fat organ can be detected between the 14<sup>th</sup> and 16<sup>th</sup> weeks of prenatal life in some specific body areas like cheeks and buttocks. Then the fat lobules development follows. At the beginning of 3<sup>rd</sup> trimester adipocytes are present in all the main fat depot areas.

Along the evolution processes, mammals and humans have developed mechanisms to store energy during abundance periods. This nutrient excess is mainly stored as TGs (triacylglycerols) primarily in the adipose tissue.

Fat deposits in the different areas of human body serve as the main caloric store and help survival during periods of food deprivation and famine. This efficient and advantageous mechanism of accumulation of fat stores, when humans were hunters and gatherers, has become deleterious with the modern style of life, characterized by food abundance and limitation of physical activity.

Excess of white adipose tissue (WAT) reflects the accumulation of TGs in fat deposits leading first to an increased filling of adipocytes and consequentially an increasing of their size (hypertrophy) and then in a second time to an increasing of the number of the adipocytes (hyperplasia). All these processes are controlled by a complex mechanism called lipogenesis. During the post-natal period the proliferative activity in adipose tissue is limited to adipocyte precursors only and remain totally undetected in adult adipocytes.

This observation is totally in contrast with the old believe that the adipocytes stop to proliferate after the sexual maturity and that the number of adipocytes stay constant through the time.

For this reason until very recently all the studies in humans were based only on determination of fat cells number (hyperplasia or hypoplasia) and fat cells volume (hypertrophy or hypotrophy).

Therefore the estimation of cellularity was limited only to a posteriori definition of volume and number of adulte mature adipocytes, which do not proliferate, without taking into consideration cells precursors and progenitors which do proliferate and differentiate.

Therefore, based on the above mentioned observations, the most recent studies on adipose tissue have mainly focused on cell precursors and progenitors.

### **Adipose derived stem cells: present status and future perspectives**

*Michele L. Zocchi*

CSM Institute of Plastic Surgery, Turin, Italy

Since the moment of its conception lipoplasty has always been considered a specialized branch of plastic surgery which takes care of the remodelling of body adipose tissue.

Classic liposuction or ultrasonic lipoplasty, constituting the most advanced technical evolution has in fact as its main objective, the reduction of volumes through the taking away of excess adipose tissue.

Lipofilling and lipo-trasplant on the other hand allow for the addition of adipose cells to those anatomic areas where support volumes are naturally lacking and secondly as in the ageing process.

For many years then, the plastic surgeon found himself confronted with large quantities of adipose tissue, underestimating its enormous intrinsic potential.

The most advanced research has been able to demonstrate that adipose tissue presents the same potentiality of growth as that of stem mesenchymal multi powerful bone marrow cells. But when taking away bone marrow the results are more traumatic and limitative, while adipose tissue can represent an inexhaustible source of easy and immediately available mesenchymal cells for clinical applications in all those areas of medicine that care for the regeneration of autologous tissues.

In fact from a modest quantity of adipose cells one can obtain, through rigorous isolation and culture techniques, large quantities of multi powerful stem cells which can eventually be differentiated according to needs (adipose, cartilaginous, bone, endothelial, muscular, hepatic tissue...).

### **Bicompartmental breast lipostructuring: before and after lipocondensation**

*Michele L. Zocchi*

CSM Institute of Plastic Surgery, Turin, Italy

The techniques of additive mastoplastic which have been described over the years, require the use of artificial materials (silicon) which are often badly tolerated by the body and have access paths which could leave visible, unaesthetic, residual scars. Furthermore there are universally known controversies on the use of pre-filled silicon gel breast implants, which at the beginning of the 90s, brought about a decree that caused the suspension and use of such products, which lasted for some years. All of the above mentioned pushed Prof. Zocchi to look for alternative solutions to additive mastoplastic with silicon implants taking into consideration the breast lipo-transplant technique.

As a matter of fact since almost a century the autologous adipose tissue has been used safely and with success in many other surgical techniques for the correction of volumetric defects of soft tissues.

Its natural, soft consistency, the absence of rejection and the versatility of use in many surgical techniques have always made autologous adipose tissue an ideal filler tissue. All of these evaluations have allowed our Group to put in place a new surgical methodology, importantly taking into consideration the most modern interpretations of breast functional anatomy and of lipostructuring and lipotransplant methodologies. Such methodology (B.B.L.S.) "Bi-compartmental Breast Lipostructuring" is based on the way adipose tissue is harvested, rigorously in closed cycle, with minimum manipulation by a so-called bi-compartmental technique of re-implantation, that is to say, exclusively in the pre-facial retro-glandular position, and in the under skin area and mainly at the upper pole breast level, so by avoiding the insertion of adipose tissue into the glandular structure context. Since 1998 we operated with this procedure on 263 patients. Total of 484 breast: 221 bilateral, 42 monolateral. Since October 2008 we consistently modified the way to harvest and to treat the adipose tissue for reimplantation, using a new revolutionary technique called "lipocondensation" in order to eliminate before the reimplantation all the fluid components of the fat by preliminary destroying the adulte mature adipocyte. The final aim of this new technical improvement is to obtain the more reliable and permanent material in order to dramatically improve the volume persistence and the tissue regeneration by reimplanting and higher concentration of stromal fraction very rich in self precursor and adipose derived stem cells (A.D.S.C.). 17 patients have been already treated with this new procedure with a residual volume maintenance rate at six months up to 90%. With the traditional B.B.L.S., before lipocondensation, the grafted fat volume ranged from 160 cc. to 920 cc. per breast (average of 390 cc.), after lipocondensation the grafted fat volume ranged from 95 cc. to 360 cc. per breast (average of 245 cc.).

Complications encountered have been minimal and transitory (two cases of pseudo cysts which regressed spontaneously and a case of micro calcification at the upper pole

level) but above all, thanks to the evolution of the way it is gathered and its re-insertion, it has been possible to sensibly increase the percentage of transferred adipose tissue survival and persistence.

Such operations must always be preceded and followed by a correct and rigorous radiography test (mammography and/or echography) which allows the safe evaluation of the evolution of transplanted tissue.

In the light of this above presented methodology, when carried out in the new described mode, and always respecting precise technical and anatomical parameters, it can constitute the most reliable therapeutic alternative to those cases where additive mastoplastic with silicon implants can prove either unsuitable or unacceptable by the patient herself.

Furthermore it is important to underline that this technique does not always need to be used in place of the additive mastoplastic with prosthetic implant. In fact the volumetric increase and the projection of the breast cone obtained, are more modest, even if noticeable, above all, at the upper breast pole level, a region that more frequently requires an earlier support intervention.

## ABSTRACTS FREE PAPERS

### **A seven years experience with distally based flaps of the leg**

*Emanuel Albu, Adrian Alexandru*

University Emergency Hospital, Bucharest, Romania

The distally based sural fasciocutaneous flap was introduced by Donski and Fogdestam in 1983. It started to become popular only 9 years later when Masquelet et al. published a complete, concise description of the relevant anatomy and surgical procedure. In 2002 when we began to use this flap it was considered a reversed-flow flap because it was suggested that flow could be reversed against the denervated valves to drain these flaps. Accordingly, we tried to prevent venous congestion in our flaps, by anastomosing, whenever possible, distal stump of lesser saphenous vein with a local vein. Only in 2007, when we start using Pedro Cavadas's posterior tibial perforator-saphenous subcutaneous flap, we learned that a much easier way to avoid venous hypertension in a distally based flap is to ligate the large vein at the base of the flap. We present the evolution of our technique and relevant cases.

### **Treatment of Aspergillus empyema using open window thoracostomy and myoplasty – preserving the function of the lung**

*László Agócs<sup>1</sup>, Bernadett Lévy<sup>2</sup>, Attila Csekeő<sup>1</sup>*

<sup>1</sup>Department of Thoracic Surgery, 'Korányi' National Institute of Pulmonology, Budapest, Hungary; <sup>2</sup>Department of Plastic Surgery, National Health Centre, Budapest, Hungary

**Introduction:** Invasive aspergillosis is a life threatening complication in immunocompromised patients causing lung tissue destruction. Aspergillus empyema requires aggressive multimodality treatment. Material and method We present two cases of Aspergillus empyema treated by thoracic and plastic surgery preserving the lung function. 1) Old male patient suffering dermatomyositis and treated by steroid for a long time. After open window thoracostomy (OWT) we used pedicled MLD flap to close the pleural cavity. 2) Young male adult after bone-marrow transplantation suffering bilateral Aspergillus empyema. Using conservative treatment and chest drainage a chronic empyema developed on the right side. The lung was trapped. The treatment was OWT followed by MLD and SA myoplasty.

**Results:** In both cases the right lung had expanded and the OWT closed. The old patient survived for a long time. The second patient is perfectly well only minor bronchiectasia was detected on his chest CT scan.

**Conclusion:** Usage of intrathoracic muscle flaps after OWT in case of chronic Aspergillus empyema can preserve the underlying lung tissue. Cooperation of thoracic and plastic surgeons in these cases presented an excellent opportunity to salvage of otherwise hopeless patients.

### **The management of the chostochondritis of the chest wall – 4 illustrative cases**

*László Agócs<sup>1</sup>, Zoltán Heiler<sup>1</sup>, Bernadett Lévy<sup>2</sup>, Róbert Tamás<sup>2</sup>, Attila Csekeő<sup>1</sup>*

<sup>1</sup>Department of Thoracic Surgery, 'Korányi' National Institute of Pulmonology, Budapest, Hungary; <sup>2</sup>Department of Plastic Surgery, National Health Centre, Budapest, Hungary

The management of chostocosndritis of the chest wall is reviewed and 4 illustrative cases are presented. Primary costochondrotos is a very rare infection and there are just a few report concerning this entity. We examined retrospectively our 4 cases in the past 5 years. The ages of the patients were between 34-68. We had 1female and 3 male patients. In their history diabetes, sarcoidosis and PTX occur. In 3 of the cases previous unsuccessful surgical attempt – such darainage and debridement – were carried out before admitted to our department. We treated all patients successfully. Adequate debridement is the single most important factor to ensure the eradication of this disease. Well- vascularized tissue-coverage reduces ischaemic factors, resists secondary infection by contamination, and promotes rapid healing. We used the pectoralis major muscle in 1 case, rectus abdominis muscle in 3 cases as a choice for pedicle- flap coverage. The average hospital stay was 18,5 days. Antibiotic usage was not extended beyond 10 days in these cases and no recurrences have been noted over a 1-to 5 year follow up.

Keywords: costochondritis, primary reconstruction, muscle-flap

### **Boundaries of reconstruction with local flaps of soft tissue and bony defects of the skull and vertebral column**

*Tibor Balajthy*

New Contour Plastic Surgery, Budapest, Hungary

Author presents the largest multiplane defects of the skull and vertebral column of the past 15 years, where extended, mostly multiple, mostly unique axial pattern flaps were used for reconstruction. Advantageous experiences with the "sandwich" – overlapping – flap technique are presented.

**Complications of endoscopic transaxillary breast augmentation in our practice in the last 15 years**

*Tibor Balajthy*

New Contour Plastic Surgery, Budapest, Hungary

Author presents the special complications of endoscopic breast augmentation from axillary approach related to this method, and also the ones independent from the method after more than thousand cases. Endoscopic, secondary correction possibilities are discussed.

**Endoscopic harvest and transfer of the latissimus dorsi muscle for the correction of the Poland syndrome**

*Tibor Balajthy*

New Contour Plastic Surgery, Budapest, Hungary

Author presents this correction possibility on male and female patients from minimal incisions as one day surgery, with simultaneous endoprosthesis implantations if required. In Poland syndrome the optimal time of muscle transfer would be the childhood, furthermore the method could be useful for the purposes of tumorous reconstructions.

**Tumorous giant forehead defect, growing and penetrating under the conditions of the Hungarian Health System. Organization pitfalls of microvascular reconstruction in Hungary**

*Tibor Balajthy, Ferenc Oberna\**

New Contour Plastic Surgery, Budapest, Hungary; \*Bács-Kiskun County Hospital, Kecskemét, Hungary

Authors present the story of a frontal tumor patient incorrectly diagnosed and treated in different departments over the years, furthermore their special methods to force the financing of the previously refused microvascular reconstruction.

### **Early operation of the cleft lip: three years experience**

(poster presentation)

*J. Borský<sup>1</sup>, J. Janota<sup>4</sup>, J. Kozák<sup>2</sup>, M. Tvrdek<sup>1</sup>, J. Zach<sup>4</sup>, M. Černý<sup>3</sup>*

<sup>1</sup>Plastic Surgery Clinic, 3<sup>rd</sup> Medical Faculty and University Hospital Královské Vinohrady, Charles University Prague, Czech Republic;

<sup>2</sup>Pediatric Stomatology Clinic, 2<sup>nd</sup> Medical Faculty and University Hospital Motol, Charles University Prague, Czech Republic;

<sup>3</sup>Obstetric and Gynecology Clinic, Department of Newborns with Intensive Care Unit, University Hospital Motol, Prague, Czech Republic;

<sup>4</sup>Department of Neonatology, Thomayer University Hospital Prague, Czech Republic

Authors present 3 years experience with early operation of the cleft lip. Patients (n = 97) were operated between day 1 and day 8 of life. Patients with unilateral as well as bilateral clefts were included in the study. Operation consisted of the primary suture of the lip, correction of the nose, and subsequent nasal splinting. We followed healing process, appearance of the scar, and influence of the suture of the lip to upper jaw growth and development. All followed variables as well as post-operative results are very promising.

### **Are the burnt patient healed after skin closure?**

*Éva Csorba, György Sáfrány, Erika Honti, Ágnes Csatáry*

Department of Burns and Plastic Surgery, St. Stephen Hospital, Budapest, Hungary

The treatment of the burned patient is an interdisciplinary mission. During the treatment the patient and the care persons are facing to different complications, as pulmonary, cardiac, metabolic, and renal disfunctions. After emission the patients has the disfiguring scars, he is working for his rehabilitation, and to solve some psychiatric disorders. The skin can be already healed, the complications are occurring, sometimes after each others which can be life threatening. The authors are going to introduce 2 extended burn cases with tracheo-oesophageal fistula, Both of them required reconstruction of the trachea. One of them had became fatal. One patient after electrical injury for one eye had blinded, an several operations are going on to keep his vision ont he other eye, after retina relaesing on both eyes. During this period he is suffering from a cholelithiasis as well. At 8 years old child in the peroneus nerve had developed a plegia, which could be solved only with stabilization of the ankle. So it is clear, to cover the skin, and other burned area is a big step for the final healing, but it is only one step.



### **Special surgical interventions for lipoma removal**

*Éva Csorba, Erika Honti*

Burn and Plastic Surgery Unit, St. Stephen Hospital, Budapest, Hungary

The removal of the lipomas can be solved usually by a simple surgical procedure. In this paper the authors shows three cases, which required special surgical intervention. The first case is a mamma necrotic lipoma, the second one in the abdominal wall several smaller and larger lipomas, and the third case is a child who has on the back two huge lipomas.

### **The possibility of legs modelling in plastic surgery**

*Ferenc Fierpasz, Csaba Viczián, Huba Bajusz*

St. Gellért Private Clinic, Szeged, Hungary

The authors demonstrate the possibilities of the change of the legs shape by surgery. They analyse the chance both the expansion of the calf with implant and the legs liposuction in the configure of the legs form. They document with intraoperativ photos own results and report upon own experience.

### **New surgical instrument for facilitating breast augmentation and breast reconstruction with introporative dilatation and expansion of pectoralis major muscle**

*Gusztáv Gulyás*

National Institute of Oncology, Budapest, Hungary

Adjustable Cavity Expander is a prototype of a new surgical instrument which is appropriate for dissection, tunneling, undermining, and adequate for acute soft tissue dilatation.

The instrument is a metal bar with fine tip for dissection. At the distal end of the cavity expander five, flat, metal springs are bending and expanding. The progressive bending of springs creates space between the tissue layers. The diameter is 12 cm, the height of the hemisphere is 6 cm. The projection of the springs of the instrument is 6 cm. The space is created by the Adjustable Cavity Expander is adequate for the shape and volume of a 220-240cc silicone breast implant or expander.

The instrument can be used for acute expansion of soft tissues or acute dilatation of pectoralis major muscle. The preexpansion of the space of silicone expanders, facilitate the intraoperative expansion and adequate filling. Acute expansion of pectoralis major muscle reduces postoperative pain. The period of postoperative serial expansion is significantly shorter. Applying the instrument reduces the duration of the aesthetic or reconstructive breast surgical procedures.

### **Improved burn wound healing provided by modern, strong antimicrobial capacity silver containing moist dressings**

*István Juhász*

Burn and Dermatotomy Unit, Department of Dermatology, University of Debrecen, Hungary

It has been postulated based on Winter's observations, that the rate of wound repair is accelerated under moist wound healing conditions as compared to the scab forming traditional wet to dry method. The wound dressings that are capable of effective hydroregulation are spongy polymers, hydrogels, hydrocolloids, hydroactive, alginate and hydrofiber dressings also called as intelligent dressings. The moist milieu however is optimal not only for the cells taking part in wound healing, but also for the bacterial flora of the wound. During the whole process of wound healing, the reduction of the number of microbial load is critical, so the contamination – colonisation – critical colonisation – infected wound continuum does not take place. The employed antimicrobial substances however at the same time cytostatic to the cells actively involved in the repair process. The most frequently used and at the same time strongest effective silver is clinically favorable, with strong wound healing promoting and tolerable cytostatic properties. There is a long list of modern wound treatment materials that combine silver into their effect. The beneficial effects of various silver containing wound dressings is demonstrated through several clinical cases in the paper.

### **Local flaps in plastic surgical treatment of basal cell carcinoma of the face**

*Csaba Kunos<sup>1,2</sup>, Gusztáv Gulyás<sup>2</sup>, Pál Csaba Pesthy<sup>2,3</sup>*

<sup>1</sup>Bács-Kiskun County Hospital, Kecskemét, Hungary; <sup>2</sup>National Institute of Oncology, Budapest, Hungary; <sup>3</sup>State Health Centre, Budapest, Hungary

Abstract: The management of basal cell carcinoma on the face is often challenging procedure for plastic surgeons. Reconstruction of tissue defects in the great majority of cases are more likely to be problematic rather than the resections. The primary purpose is complete tumor removal, but achieving a predictable, functional, and aesthetic outcome is also very important. Experts in the field of reconstructive plastic surgery can completely satisfy this requirements. The aim of this lecture is to demonstrate the synchronization of oncological safety and aesthetic result of reconstruction of soft tissue defects with different local flaps.

### **Haemangioma laser treatment using Cutera CoolGlide NdYag and LimeLight IPL Systems**

(poster presentation)

*Ioan Lasca<sup>1</sup>, Florin Juravle<sup>1</sup>, Serban Arghir Popescu<sup>1</sup>, Luigi Calapod<sup>2</sup>*

<sup>1</sup>Clinical Emergency Hospital Bucharest, Plastic Surgery and Reconstructive Microsurgery Clinic, University of Medicine and Pharmacy 'Carol Davila', Bucharest, Romania; <sup>2</sup>LC Rhea Medical Care, Bucharest, Romania

The Cutera Coolglide Nd-YAG system – a laser with a 1064 wavelength – has a good penetrability (0-6 mm) because of its greater wavelength, making thus possible to have action upon the profound veins and cavernous haemangioma. This type of LASER has only action upon Oxihemoglobin (and has no action on water as the CO<sub>2</sub> LASER does), this results in a protection of the normal adjacent tegument. When calibrating the profoundness of the action which should be adapted to the thickness of the haemangioma the spot diameter was mainly considered. The set up of the fluency and duration of the LASER pulse allowed the adequate adaptation of the energy to the blood volume. Cooling was efficiently achieved with the built in hand piece cooling system. The set up of these parameters was possible based on the experience achieved on making preceding tests on limited lesion areas and "real time calibration" resulting an adapted treatment for each haemangioma surface corresponding to various depth. The favourable results were demonstrated by the perfect contour of the trace left behind the LASER pulse on the haemangioma surface (at one treatment session 80-90% of the haemangioma thickness was removed). Cutera IPL LimeLight allowed flattening the haemangioma surface after applying the LASER treatment (Cutera Coolglide NdYag 1064 nm) which considerably reduced the thickness of the lesion. LimeLight has an electronic system which provides an adequate cooling and a selection of the bands for the big wave's length selection with selective absorption for hemoglobin. The efficient cooling system adapted to the warming resulting after photo-coagulation allowed reducing to minimum the burning risk, a secondary effect always present on other type of treatment. This was demonstrated by the treated surfaces aspects which were sufficiently cooled when applying the procedure. From all the treatment session, just 2 or 3 were efficient in depth and on a large surface the other treatment sessions were preceding tests which allowed achieving the presented results. Combining the two procedures had given the best results. The essential condition in applying this treatment was that the haemangioma is treated reducing the burning risk the practice to "burn" the haemangiomas in just one treatment session using "aggressive" parameters it is still in use today, but the dramatic local secondary effects were reasons to not apply such a procedure. We present several cases treated in the explained manner. The results are partial and other procedures will be made to attain a uniform aspect of the treated areas. In one case the intention is to use an optic fiber for the lower lip treatment in the thickness of the lip. This procedure is possible today with the only existing LPS system – the Dornier LASER (the LPS electronic system

automatically stops the LASER pulse when a raising of the temperature of the optic fiber beyond the safety levels for the patient is reached.

**Conclusions:** The elective photocoagulation provided by the CUTERA CoolGlide NdYag and LimeLight IPL Systems allow a wide range of parametters combinations adapted to the lesions characteristics under the control of "real time calibration" and the pre and postprocedure cooling electronically controlled and brought the best results in treating haemangiomas. Preceding tests were necessary to gain experience and bring the perfect set up combinations for the treatment. This experience can evolve only on the base of using a stable powerful system with a "real time" calibration.

**Further details:** [www.lcrhea.ro](http://www.lcrhea.ro) cutera NdYag and Limelight dornier LC Rhea Medical Care represents in Romania Cutera SUA and Dornier Germany

### **Lunch time procedure: non-invasive skin tightening by the newest generation Thermage unit**

*Peter Ljubetic*

Solta Medical Inc., USA

The nineties may be called the age of the grand, heroic intervention in aesthetic plastic surgery. Initially, we operated face with endoscopy procedure more drastically, not only beneath the skin and the SMAS layer, but also underneath the periosteum that has brought in new surgical technics. Regarding to the surface of the face, the CO2 and the Erbiumk laser have appeared. By means of this, we could achieve a deeper ablation than before.

Technical innovations in this decade did not fix the earlier tendency, on the contrary, they have brought along a new wave of aesthetic interference. With the help of the more and more excusite and effective equipments (as well as smaller ambulant interventions), we have slowly reached that level, whereby we may substitute early immense operations. For the sake of simple examples, we can think of the appearance of cavitation that is used by removing extra fat, or the injections that are given while dissolving fat.

Minimally invasive modes appeared on the face and spread the world. Among non-invasive processes we would like to choose the Thermage treatment for demostration, which we have used only for a shorter period, yet its application, itself or combined with other minor interferences, is able to change our attitude towards non-invasive procedures on the face and on the whole body drastically.

The essence of our lecture might be put as a question; will this non-invasive technic be able to overshadow bigger operations used on the face and body?

We would like to introduce the most modern, monopolar, capacitive radiofrequency device. It's effect is the thightening of the skin and counturing the treated area.

### **Laser treatment of axillary hyperhidrosis**

*Dusan Maletic, Ines Maletic*

Policlinic 'Dr. Maletic', Daruvar, Croatia

**Introduction:** Hyperhidrosis in the armpit region is a very unpleasant condition in both men and women at all ages, specially during summer. Hyperhidrosis can be either continuous or repeat itself in phases. Numerous modalities of treatments have been used in the treatment of the hyperhidrosis including topical methods, systemic medicines and surgical, the most common being the use of botulinum toxins. All have their limitations and collateral effects.

**Objective:** To evaluate the novel minimally invasive treatment of Axillary Hyperhidrosis with the use of Nd:YAG Laser, which is proposed as the permanent solution for reduction of armpit sweating.

**Method:** Laser assisted removal of the axillary hyperhidrosis is a surgical procedure executed in local tumescent anesthesia, where the apocrine glands are destroyed with the laser energy and removed from the armpit with suction probe (modified Blugerman-Schavelzon model). 35 patients (29 female and 4 male) were treated on both axillas in a period of last six months. On 34 patients one only treatment was performed, and on one patient the second treatment was performed one month after the first one. Follow-ups were made on second day and one week, one month and five months intervals. Responses were evaluated with the starch powder test in the percentage of axillar sweating reduction.

**Results:** An average of 80% reduction of axillary hyperhidrosis is obtained with minimal side effects like slight edema and axillar hair reduction (considered by patients as positive effect).

**Conclusion:** Laser assisted removal of the axillary hyperhidrosis with NdYAG laser is minimally invasive and successful method for permanent and significant reduction of axillary sweating.

**Keywords:** axillary hyperhidrosis, laser treatment, Nd:YAG laser

### **Breast assessment score – a new method of clinical evaluation and implant selection for breast augmentation**

*Toma Mugea*

Oradea Medical University, Cluj-Napoca, Romania

In order to have an objective tool in breast assessment for implant selection, we studied different parameters defining the breast: soft tissue elasticity, skin excess, breast volume and breast ptosis. For each parameter we give a score from 1-3, (1 for mild, 2 for moderate and 3 for severe), and the combination between all this factors will give the Breast General Score (BGS). According to this, a TTM® Computer Program

will select for each case the CPG Mentor implant, suggested to be used in order to obtain an anatomical breast augmentation with a natural aesthetic result. In our experience, BGS and the computer program, was proved to be useful, even for cases with asymmetrical breasts.

**Key words:** breast assessment score, implant selection, computer program.

### **Free flap reconstruction of tissue defects in the maxillofacial region**

*Ferenc Oberna, Beáta Sántha, Ilona Tóth, Mihály Svébis*

Bács-Kiskun County Hospital, Kecskemét, Hungary

**Goals:** Investigation of the success rate and the salvage possibilities of free flaps used for reconstructions in the maxillofacial region.

**Material and methods:** Between 08.10.08.2003 – 10.08.2009 186 free flap reconstructions were done mostly with oncological indications (88%) For primary soft tissue reconstruction of the oral cavity and oropharynx in 148 (80%) cases the radial forearm, for larger defects or as salvage flap the latissimus dorsi 13 (7%) flaps were used. In rare cases the serratus anterior myo or myocutaneous (3) or lateral upper arm flap were applied. Our first choice for primary reconstruction of oncological composite defects is the reconstruction plate wrapped in soft tissue free flap (9,7%).

In 16 (8,6%) cases the fibular osteo or osteosepto(myo)cutaneous flap was used.

**Results:** The perioperative mortality was 1,6%. We detected total necrosis in 13 (7%) and partial necrosis 2 (1,1%) of the transferred free flaps. 18(8,6%) explorations were done because of circulatory problems. 6 (33%) of these successfully reanastomosed. In 8 (44%) cases second latissimus dorsi flap was transferred. Among the conventional flaps 4 (2,6%) radial forearm flap necrosis had to be salvaged with other flap. There was no total necrosis of LD or fibular flap. In the second part of our operation series the rate of total and partial flap necrosis were diminished to 1 case (1.03%). The early re-exploration saved all the six flaps.

**Conclusions:** In the maxillofacial region conventional free flaps could be applied with excellent results even after irradiation and using 2,5X magnification for microvascular anastomosis.

### **The novel dexterity enhancer instrument-holding fingertip support microsurgical technique and its application in plastic and reconstructive surgery**

*Gergely Pataki, Zsolt Révész, András Csókay\*, Éva Csorba*

St. Stephen's Hospital, Department of Burns and Plastic Surgery, Budapest, Hungary;

\*St. John's Hospital, Department of Neurosurgery, Budapest, Hungary

**Introduction:** Elimination of the physiological hand tremor of the plastic and reconstructive surgeon by certain techniques allows procedures to be performed more precisely, which leads to more effective revascularization, nerve repair or free flap transfer. The improvement of the level of accuracy in microsurgery enables working at a microscopic scale that has not been previously possible.

**Background:** The physiological tremor of an experienced microsurgeon's hand can be up to 0.4-0.6 millimeters. This might cause difficulties at microsurgical procedures, even when using different arm- and hand-rests. Current medical robots have a level of precision of 0.1 millimeters. However, the application of these machines is expensive and often inconvenient for surgeons because the direct touch via micro instruments with living tissues is impossible. Safety issues of medical robotics should to be considered as well.

**Methods:** Our primary concept describes a very simple and cost-efficient microsurgical method called the 1<sup>st</sup>-2<sup>nd</sup> and 3<sup>rd</sup> instrument holding fingertip support technique. We have further developed this microsurgical technique and demonstrate its possible application in plastic surgery.

**Measurements and Results:** The technique consists of a special support of the surgeon's thumb's and index finger's distal phalanx on the crossing bridge above the operating (working) point by which the 0.1 mm precision of the surgeon's hand could be reached at microsurgical procedures. This level of precision could not have been achieved by conventional techniques by hand so far. The significant effect of the technique on the surgeon's hands was proven by exact analysis of the reduction of tremor by tremorometry and ultrasensitive instrument displacement measurements in three dimensions.

**Conclusion:** We have further developed our tools and techniques to match requirements in various anatomical regions accessed in plastic surgery, where we can use the technique with success. Our aim is to present the application of the technique in the fields of plastic and reconstructive surgery. Future clinical trials will assess which microsurgical procedures in the field of plastic surgery could be improved with the help of the dexterity enhancer instrument holding fingertip support microsurgical technique.

### **Heparin Induced Thrombocytopaenia (HIT) – a potentially life-threatening complication of thromboprophylaxis**

*Pál Csaba Pesthy<sup>1</sup>, Csaba Kunos<sup>2</sup>, Gusztáv Gulyás<sup>3</sup>*

<sup>1</sup>Department of Burn and Plastic Surgery, National Health Centre, Budapest, Hungary;

<sup>2</sup>Department of Dermatosurgery, Bács-Kiskun County Hospital, Kecskemét, Hungary;

<sup>3</sup>Department of Face and Neck Reconstructive Surgery, Oncological Reconstructive Surgery and Laser Surgery, National Institute of Oncology, Budapest, Hungary

LMWH thromboprophylaxis plays an important role in the prevention of DVT and PE. It is extensively used in reconstructive and aesthetic breast surgery. The most common complication of thromboprophylactic treatment is bleeding, but according to the literature there also exists the risk of a potentially life-threatening complication of thrombosis. Authors report a case of complete necrosis of a muscle-sparing free TRAM flap. They report the successful treatment of multiple visceral vein thromboses resulting from the immune reaction. The multidisciplinary treatment of immune HIT highlights the serious risks of heparin prophylaxis. The authors emphasize the importance of early diagnosis and regular postoperative laboratory control.

### **Implant rupture – MRI in breast implant follow-up**

*Ilona Polyák, Huba Bajusz, Éva Makula*

St. Gellért Private Clinic, Szeged, Hungary

Is breast implant rupture an indication for surgical intervention?

Authors will give a short overview of the rupture rate of 1-4 generations of breast implants.

Magnetic resonance imaging (MRI) is generally accepted technique for evaluating breast implants status.

FDA indicated large investigations of breast implants and implants follow up.

FDA approval and guideline:

- breast implants are not lifetime devices and a woman will likely need additional surgeries on her breast at least once over her lifetime;
- rupture of a silicone gel-filled breast implant is most often silent,
- which means that usually neither the woman nor her surgeon will know that her implants have ruptured;
- and a woman will need regular screening MRI examinations over her lifetime to determine if silent rupture has occurred.

The device labeling states that a woman should have her first MRI three years after her initial implant surgery and then every two years thereafter.

So far there is no similar demand on the EU market.

There is general consensus that symptomatic implant rupture warrants explantation,



however the attitude and strategy to asymptomatic implant rupture is more controversial, since intracapsular implant rupture can be present for years without symptoms. To detect silent implant rupture MRI is the most effective examination nowadays.

#### **FUE hair transplantation method**

*Géza Sikos*

Sikos Plastic Surgery, Hair Transplant Clinic, Budapest, Hungary

Follicular Unit Transplantation (FUE) is the special method of hair transplantation. By this technique harvesting of the donor follicular units are done by individual extraction. After the introduction (indication, importance) author reviews the details of FUE surgery by the help of a video.

#### **Versatile, safe and long lasting mammoplasty method**

*Géza Sikos*

Sikos Plastic Surgery, Hair Transplant Clinic, Budapest, Hungary

The reviewed method of mammoplasty by the use of cranially pedicled mediovertical flap meets most of the requirements of aesthetic breast surgery. This method is safe, equally fit for reduction and lifting procedures, provides reliable and cosmetically well accepted results for a long term. The essential part of the technique is the tension free tissue and wound closure which makes optimal wound healing and scar formation. Steps of the surgery is shown.