

ISMST

International Society for Medical Shockwave Treatment



12th International Congress of the ISMST

Hilton Sorrento Palace

Via S. Antonio 13

80067 Sorrento (Na) ITALY

April 2nd | 4th 2009

Scientific Program



SWISS DOLORCLAST®

→ A UNIQUE CONCEPT IN RADIAL SHOCK WAVE THERAPY (RSWT)

→ THE SWISS DOLORCLAST® IS THE ONLY RADIAL SHOCK WAVE DEVICE WITH

- multiple published studies in international peer-reviewed journals demonstrating clinical efficacy according to Evidence Based Medicine criteria*,
- approval as an extracorporeal shock wave therapy device by the United States Food and Drug Administration (FDA)**,
- a maximum energy flux density of more than 0.5 mJ/mm².

* The term Evidence Based Medicine refers to the demonstration of efficacy and safety of therapeutic interventions in prospective, randomized, controlled clinical trials. According to the U.S. Preventive Services Task Force (USPSTF), Level I Evidence is reached when efficacy and safety is demonstrated in at least one properly designed randomized controlled trial. The following Level I studies performed with the Swiss Dolorclast® have been published thus far:

- Gerdesmeyer et al., Radial extracorporeal shock wave therapy is safe and effective in the treatment of chronic recalcitrant plantar fasciitis: results of a confirmatory randomized placebo-controlled multicenter study. *Am J Sports Med* 2008; 36:2100-2109
- Rompe et al., Eccentric loading, shock wave treatment, or a wait-and-see policy for tendinopathy of the main body of tendo Achillis: a randomized controlled trial. *Am J Sports Med*. 2007;35:374-383
- Rompe et al., Eccentric loading compared with shock wave treatment for chronic insertional Achilles tendinopathy. A randomized, controlled trial. *J Bone Joint Surg Am* 2008;90:52-61
- Rompe et al., Eccentric loading versus eccentric loading plus shock wave treatment for midportion Achilles tendinopathy: a randomized controlled trial. *Am J Sports Med* 2008 Dec 15 [Epub ahead of print]

** The FDA classifies extracorporeal shock wave therapy devices as Class III devices. Approval of a Class III device requires demonstration of clinical efficacy and safety in a so-called "investigational device exemption" (IDE) study. Based on the results of this study, FDA then grants "pre-market approval" (PMA). To date (March 1, 2009), the Swiss Dolorclast® Classic is the only radial extracorporeal shock wave device with PMA granted by the FDA (PMA no. P050004).

→ ASK FOR THE DIFFERENCE IN RADIAL SHOCK WAVE THERAPY!



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LETTER OF THE PRESIDENT OF THE ISMST

Dear Friends and Colleagues

For the second time since the birth of our International Society the congress will be held in Italy and exactly in Sorrento.

For our school and me this is a great honour as well as a recognition of the work carried out so far in the study and development of the methodology.

In our University "Federico II" of Naples the very first applications (in the world) on the pseudarthrosis of the carpal scaphoid and the necrosis of its proximal pole were carried out. These experiences were then presented in Helsinki, Finland, on July 1995 during the 6th Congress of the International Federation of Societies for Surgery of the Hand.

A lot of water has gone under the bridge since then, and that small group of European daring researchers, which first ventured on the field at that time unexplored of the shock wave therapy in the orthopaedics, is today at the top management of ISMST together with many other enthusiastic scholars of this technology.

The organization of the XII ISMST Congress represents for me a moment deeply thrilling and of which I feel responsible both because I have known this Society, of which I have been one of the Promoting Partners, since the day it was born and because, in doing this, I receive the scientific inheritance of my Master, Professor Ezio Maria Corrado, Director of the University Department, where I am honoured to work, as well as first President of ISMST and promoter of the first International Congress of our Society.

The organization of such a Meeting and about methodology is not easy, considering that it is necessary to leave plenty of room to the progress report of the research and the new application fields, without limiting the room dedicated to clinical experiences.

The setting of the Sorrento peninsula well suits our annual meeting for its deserved tourist renown, both for its natural beauties and its history and the close archaeological sites.

I am sure I will not disappoint you, I am waiting for you in great numbers at the Hilton Sorrento Palace for a fruitful scientific debate and, why not?, for wonderful nights off to spend with you, friends from all over the world.

See you in Sorrento

Professor Sergio Russo

President of ISMST

March, 2009

LETTER OF ORGANISING BOARD MEMBER

Dear Colleagues,

15 years have already gone by since the first clinical trials of ESWT in the musculoskeletal pathologies, at first only limited to pseudarthrosis. These 15 years of strenuous researches have enabled the evolution of this therapy in wider orthopaedic pathological fields, especially thanks to researches concerning biological effects of Shock Waves on living tissues and to the knowledge of some complex physical-chemical reactions linked to them. These studies are still going on and will certainly be harbinger of further therapeutic discoveries.

I am able to assert, with legitimate pride, that the first studies carried out with Sergio Russo, and even thanks to the contribution of similar studies made by European colleagues, have allowed the new therapy to reach today results that appeared impossible at the beginning of our medical adventure.

I have been witness and interpreter of many events of ESWT, like the establishment of the prior Italian study group of shock wave therapy (GITOD) and its following transformation into SITOD (Italian Society of Shock Wave Therapy). At the same time I have been among the promoting partners of the European Society of Shock Wave Therapy (ESMST) in Vienna. Thanks to the great worldwide interest aroused by ESWT, in 1999 in London it was changed into International Society of Shock Wave Therapy in musculoskeletal pathologies (ISMST) and I was elected first president of the newly born society during the meeting at the Wolfson Conference Centre. Furthermore, I take the opportunity to greet my dear friend Professor Heinz Kuderma as first president of ESMST and honorary president of ISMST.

The XII ISMST international congress will be held, after the former in 2000, in Italy, in the gorgeous setting of the Sorrento peninsula, at the Hilton Sorrento Palace. The organization is entrusted to the Professor Sergio Russo, who is already President of SITOD as well as current President of ISMST and I will be the honorary President.

It will be a wonderful opportunity to meet many colleagues and friends and to focus on new frontiers of Shock Wave Therapy.

See you soon

Sincerely yours

Professor Ezio Maria Corrado
First President of ISMST

LETTER OF ORGANISING BOARD

Dear colleagues and friends,

It is a great honour and a real pleasure to invite all of you to the 12th International Congress of the ISMST. This welcome is offered in conjunction with my teachers, Prof. E.M. Corrado and Prof. Sergio. Russo, and all the other members of the organizing committee. We are delighted to be holding our meeting in the beautiful surroundings of Sorrento in Italy.

The congress on "Shock Waves and New Frontiers" will certainly be an interesting scientific event; we are all looking forward to the full range of topics for discussion, new aspects of basic research and novel applications for tissue regeneration.

We can be sure that our conference will provide a summary of the current status of shockwave treatment as well as providing a starting point for innovative clinical applications and research.

Your vigorous participation is appreciated, together with your scientific contribution. We hope to provide an excellent opportunity for the exchange, evaluation and discussion of this promising therapy.

Quite apart from the scientific sessions, the social program will allow old friends to meet again and for us all to encounter new acquaintances, spending time together with members of the international family for the provision of shockwave treatment to our patients.

We are delighted to welcome you in Sorrento.

We hope you are pleased with the opportunities this will offer.

Kindest regards

M. Cristina d'Agostino

Important advice about the recording of the presentations:

- ⇒ The recording of the sessions is not allowed.
- ⇒ Taking photographs of the slides will be allowed, except an author refuses this acceptance.

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THE ORGANISING COMMITTEE

Prof. Sergio Russo
President of the ISMST



Dr. Wolfgang Schaden
Vice President of the ISMST



Dr. Vinzenz Auersperg
General Secretary of the ISMST



Dr. Richard Thiele
Trade Coordinator of the ISMST



Dr. Maria Cristina d'Agostino
Organising Assistance



Dr. Rainer Mittermayr
Scientific Assistance



STORZ M

MEDICAL

Wednesday, April 1st

- 15:00 - 17:00 *Registration at the
Nettuno congress center of Hilton Sorrento Palace*
- 16:00 - 18:00 *Meeting of the Managing Board
Board Room 3; Hilton Sorrento Palace*

Thursday, April 2nd

- as of 08:00 *Registration at Nettuno congress center*
- as of 08:00 *Slide center "Board Room 6"*
- 8:30 - 17:30 *Industrial exhibition*
- 08:30 - 09:00 **Opening Ceremony:**
Words of welcome:
Sergio Russo (President of the ISMST)
Ezio Maria Corrado (Honorary Congress President)
Heinz Kuderna (Honorary ISMST-President)
- 09:00 - 09:45 **Session 1: General Aspects**
President: **E.M. Corrado**
Chairmen: **H. Kuderna, S. Russo**
- 09:00 - 09:07 *Tom Matula, H. Chen, A. Brayman (USA)*
Imaging bubbles in vessels (1)
- 09:07 - 09:14 *Maria Cristina Ottone, F. Fagnani (Italy)*
**Total energy emitted: Is this the most important factor for
the efficacy of ESWT? (2)**
- 09:14 - 09:21 *Pavel Novak (Switzerland)*
**Extracorporeal pulse activation therapy (EPAT):
Efficacy of pressure pulse transmitters (3)**
- 09:21 - 09:28 *Othmar Wess (Switzerland)*
A neural model for chronic pain and pain relief by ESWT (4)
- 09:28 - 09:35 *Richard Thiele, M. Gleitz, M. Maier, M. Buch, G. Wille,
H. Neuland, W. Schaden, J.D. Rompe, R. Rädcl,*

V. Auersperg, L. Gerdesmeyer

ESWT Guidelines (5)

09:35 - 09:45 **Discussion**

09:45 - 11:00 **Session 2: Experimental I**

President: **S. Montagnani**

Chairmen: **M. Branes, J. Holfeld**

09:45 - 10:00 *Lecture I Donato Rosa (Italy)*

New trends in cartilage repair (L1)

10:00 - 10:10 *Helmut G. Neuland, Y. Delhase, C. Steiningen,
A. Schmidt, W. Bloch (Germany)*

Focused and radial shock wave treatment influence human mesenchymal stem cells (6)

10:10 - 10:20 *Biagio Moretti, A. Notarnicola, R. Tamma, A. Zallone,
L. Moretti, C. Citarella, D. Dimonte, V. Patella (Italy)*

SW on human platelet-rich plasma and osteoblasts (7)

10:20 - 10:30 *Yvonne Delhase, H. G. Neuland, W. Bloch (Germany)*

Wound Healing - Influence of focused and radial shock wave treatment on the behaviour of human mesenchymal stem cells (8)

10:30 - 10:40 *Enrico Vigato, G. Pietramaggiore, B. Hinz, B. Pittet,
F. Bassetto (Switzerland, Italy)*

The effect of shock waves on differentiation and function of myofibroblast (9)

10:40 - 11:00 **Discussion**

11:00 - 11:30 **Coffee break**

11:30 - 13:10 **Session 3: Plantar fasciitis**

President: **D. Rosa**

Chairmen: **J. Furia, S. Gigliotti**

11:30 - 11:45 *Lecture II Andrea Ferretti (Italy)*

Tendon pathology and sports (L2)

11:45 - 11:52 *Roberto Audain, R. Chirinos, Y. Alvarez (Venezuela)*

Significance of analgesia induced by focused shock waves in proximal plantar fasciitis (10)

- 11:52 - 11:59 *Tomas Nedelka, V. Bartak, T. Oshiro (Czech Rep., Japan)*
ESWT versus ESWT combined with infrared low level laser therapy (LLLT) in treatment of chronic plantar fasciitis(11)
- 11:59 - 12:06 *Dimitar Ivanov Raykov (Bulgaria)*
rESWT in cases of 'particular' plantar fasciitis (12)
- 12:06 - 12:13 *Jason Chia (Singapore)*
Comparison between the efficacies of three dosis regimens of ESWT for the treatment of chronic plantar fasciitis (13)
- 12:13 - 12:20 *Paolo Buselli, S. Messina (Italy)*
Plantar fasciitis treatment : physical therapy with US versus ESWT (14)
- 12:20 - 12:27 *Paulo R. Rockett, A. C. Souza, P. Dias dos Santos (Brazil)*
Effectiveness of shock wave therapy in patients with chronic plantar fasciitis (15)
- 12:27 - 12:34 *Franco Troncati, M. Imbrenda, I. Spaghetti, B. Lombardi (Italy)*
Plantar fasciitis: Follow up four years after ESWT (16)
- 12:34 - 12:41 *Maria Cristina Ottone, E. Roldi (Italy)*
ESWT in the treatment of plantar fasciitis: Follow up at three years (17)
- 12:41 - 12:48 *Mahmoud Ibrahim, R. Donatelli, M. Hellmann, F. Buxbaum (USA)*
The effectiveness of extracorporeal radial shock wave therapy for patients with plantar fasciitis (18)
- 12:48 - 12:55 *John Ogden, W. Schaden, R. Thiele, J. Stabler, R. Schultheiss*
Evidence-based analysis of level I studies involving f-ESW or r-ESW for plantar fasciopathy (19)
- 12:55 - 13:15 **Discussion**
- 13:15 - 14:30 **Lunch**
- 14:30 - 15:50 **Session 4: Elbow and shoulder**
President: **F. Lolito**
Chairmen: **R. Gimigliano, L. Gerdesmeyer**
- 14:30 - 14:37 *Miguel Angel Guedez, M. Capasso, G. Verratti, F. Gonzalez, O. Gonzalez, M. Betancourt, C. Quintero, A. Utrera (Venezuela)*
Shock wave in tennis elbow: Long term follow-up, pitfalls and complications (20)

- 14:37 - 14:44 *Yavuz Yildiz, T. Aydin (Turkey)*
**Focused and radial ESWT for lateral epicondylitis:
Preliminary results (21)**
- 14:44 - 14:51 *Jose Ramon Aranzabal (Spain)*
**Chronic golfer's elbow: How can we obtain good results
with ESWT? (22)**
- 14:51 - 14:58 *Luigi Foggia, M. R. Carillo, C. Cavallaro, A. Petrosino,
V. Pezzullo, P. Villano (Italy)*
**Efficacy of radial shock wave therapy (RSWT) combined
with low level laser therapy (LLLT) in the management of
supraspinatus tendinopathies (23)**
- 14:58 - 15:05 *Andreas Lang, H. G. Neuland, M. Menge (Germany)*
**Controversial results in the treatment of lateral epicondylitis
of the humerus up to now - reasons? (24)**
- 15:05 - 15:12 *Aniello Calemma, A. Soldati, A. Tartarone, G. Busco,
F. Servodio Iammarrone, C. Servodio Iammarrone, S. Russo
(Italy)*
**Treatment of calcifying tendinitis of rotator cuff with
ESWT (25)**
- 15:12 - 15:19 *Paulo Roberto Rockett, A. C. Souza, P. Dias dos Santos (Brazil)*
**Effectiveness of shock wave therapy in patients with calci-
fying tendinopathy of the shoulder (26)**
- 15:19 - 15:26 *Mario Vetrano, M. C. Vulpiani, L. Minutolo, D. Trischitta,
A. Ferretti (Italy)*
**The effectiveness of ESWT in comparison with usual conser-
vative treatments in subacromial impingement syndrome
(SIS): Results of a long-term, prospective, single-blinded,
randomized clinical trial (27)**
- 15:26 - 15:50 **Discussion**
- 15:50 - 16:30 **Coffee break**
- 16:30 - 17:30 **Session 5: Miscellaneous I**
President: **B. Moretti**
Chairmen: **R. Thiele, J. Ogden**
- 16:30 - 16:37 *Javier Crupnik (Argentina)*
**Eccentric loading plus radial shock wave therapy in the tre-
atment of chronic patellar tendinopathy (28)**

- 16:37 - 16:44 *Paulo R. Rockett, M. Lui (Brazil)*
Effectiveness of ESWT in patients with chronic patellar tendinopathy (29)
- 16:44 - 16:51 *Johannes Zwerver, M. van Leeuwen, I. van den Akker Scheek, (Netherlands)*
ESWT for patellar tendinopathy (30)
- 16:51 - 16:58 *Paulo R. Rockett, M. Lui (Brazil)*
Effectiveness of shock wave therapy in patients with pes anserine bursitis (31)
- 16:58 - 17:05 *Ruyun Yan (China)*
Effect of radial extracorporeal shock wave therapy for overuse injury in athletes (32)
- 17:05 - 17:12 *John P. Furia, J. D. Rompe, N. Maffulli (USA, Germany, GB)*
Low energy extracorporeal shock for chronic greater trochanteric pain syndrome (GTPS) (33)
- 17:12 - 17:30 **Discussion**
- 17:30 - 18:30 **Annual General Meeting**
Lecture hall at the Nettuno congress center including presentation of the next congress
(Lowell Weil jr.)
- 20:30 **Presidential Gala Dinner**
“Le Ginestre” at the Hilton Sorrento Palace
Registration at the congress registration desk at Nettuno congress center Formal dressing, black tie

Friday, April 3rd

- 08:30 - 18:00 **Industrial Exhibition**
- 08:30 - 09:50 **Session 6: Bone Pathologies I**
President: **U. Passaretti**
Chairmen: **V. Auersperg, R. d'Ambra**

- 08:30 - 08:45 *Lecture III: Alexander Kirienko (Italy)*
Treatment of bone loss and non-union with circular fixator (L3)
- 08:45 - 08:52 *Xing Geng-Yan, L. Yun-Huang (China)*
ESWT for AVN of the talus (34)
- 08:52 - 08:59 *Matteo Vitali, C. Sosio, G. M. Peretti, L. Mangiavini, G. F. Frascini (Italy)*
Spontaneous osteonecrosis: Long-term effectiveness of extracorporeal shock wave therapy in the treatment of early spontaneous osteonecrosis of the knee: a 2-year follow-up (35)
- 08:59 - 09:06 *Raoul Saggini, R.G. Bellomo, F. Cancelli (Italy)*
Use of shock waves in Osgood-Schlatter disease (36)
- 09:06 - 09:13 *C. Servodio Iammarrone, S. Russo, M. Macca, F. Servodio Iammarrone, T. Caione (Italy)*
Defocused shock wave therapy and hip osteoarthritis (37)
- 09:13 - 09:20 *Sara Messina, P. Buselli, V. Coco, R. Saggini (Italy)*
Extracorporeal shock wave therapy in post-traumatic myositis ossificans (38)
- 09:20 - 09:27 *Vincenzo Bosco (Italy)*
Shock wave therapy for POA (39)
- 09:27 - 09:50 **Discussion**
- 09:50 - 10:30 **Session 7: Achilles Tendinopathy**
President: **C. Ruosi**
Chairmen: **A. Ferretti, R. Coombs**
- 09:50 - 09:57 *Taner Aydin, Y. Yildiz (Turkey)*
Preliminary results of extracorporeal shock wave therapy in patients with achilles tendinopathies (40)
- 09:57 - 10:04 *Gabriele Verratti, M. A. Guedez, M. Capasso, L. Moya, M. Betancourt, C. Quintero, A. Utrera (Venezuela)*
Preliminary results in the treatment of achilles tendinopathy by application of SWT combined with microdebridement radio frequency (Topaz(r)) (41)
- 10:04 - 10:11 *Paulo Roberto Rockett, A. C. Souza, P. Dias dos Santos (Brazil)*
Effectiveness of shock wave therapy in patients with chronic achilles tendinopathy (42)

- 10:11 - 10:18 *Luigi Russo (Italy)*
Comparison of growth factors and shock wave therapy for chronic insertional achilles tendinopathy (43)
- 10:18 - 10:30 **Discussion**
- 10:30 - 11:00 **Coffee break**
- 11:00 - 12:10 **Session 8: Bone Pathologies II**
President: **A. Kirienko**
Chairmen: **W. Schaden, C. Piergentili**
- 11:00 - 11:15 *Lecture IV: Umberto Passaretti (Italy)*
Carpal scaphoid fractures (L4)
- 11:15 - 11:22 *Biagio Moretti, A. Notarnicola, E. Marlinghaus, R. Garofalo, L. Moretti, S. Patella, V. Patella (Italy, Switzerland)*
ESWT in stress fractures (44)
- 11:22 - 11:29 *Juan Maria Alarcon Garcia, A. L. Santos, J. M. Gracia Nicolas (Spain)*
Non-union and shock waves: the option (45)
- 11:29 - 11:36 *Paulo Kertzman, J. Eid (Brazil)*
Is it possible to treat non-unions with radial shock wave therapy? (46)
- 11:36 - 11:43 *Ana Claudia Souza, P. Rockett (Brazil)*
Extracorporeal shock wave therapy for delayed healing fractures and non-unions (47)
- 11:43 - 11:50 *Carlo De Durante, A. Pellegrino, M. Buffolano, F. Tedesco, C. Colella (Italy)*
Shock wave therapy in the treatment of non-unions and delayed unions of long bones (48)
- 11:50 - 12:10 **Discussion**
- 12:30 - 14:00 **Speed-Lunch**
- 14:00 - 23:00 *Excursion to Ercolano including a guided tour through the archaeological site and through the archaeological virtual museum (MAV) including ISMST Society Dinner*
Departure:
Bus starts at 14.00 at the Hilton Sorrento Palace

Saturday, April 4th

08:30 - 11:30 **Industrial Exhibition**

08:30 - 09:30 **Session 9: Spasticity**

President: **C. S. Iammarrone**

Roundtable: **A. Morral, P. Kertzmann, B. Corrado, E. Amelio, P. Buselli, C. Tompetto, C. d'Agostino, M. C. Vulpiani, F. Lolito**

08:30 - 08:40 *Xavier Vidal, A. Morral, E. Carlota, L. Costa, A. Fornós, F. Gimeno (Spain)*

rESWT in the treatment of spasticity in cerebral palsy: randomized, placebo-controlled clinical trial (49)

08:40 - 08:50 *C. Servodio Iammarrone, B. Corrado, F. Servodio Iammarrone, S. Russo (Italy)*

Defocused ESW in treatment of district spasticity in children affected by cerebral palsy with special reference to correction of equinus foot deformity: clinical evaluation of the results with gait analysis integrated (50)

08:50 - 08:57 *Hannes Müller-Ehrenberg, L. Thorwesten, M. Pottebaum, H. Epping, L. Gries, K. Völker (Germany)*

Focused ESWT as a useful diagnostic tool for myofascial trigger points (51)

08:57 - 09:04 *Hannes Müller-Ehrenberg, L. Thorwesten, M. Pottebaum, H. Epping, L. Gries, K. Völker (Germany)*

Treatment of myofascial trigger points using focused ESWT (52)

09:04 - 09:30 **Discussion**

09:30 - 10:40 **Session 10: Experimental II**

President: **H. Suzuki**

Chairmen: **S. Russo, L. Gerdesmeyer**

09:30 - 09:45 *Lecture V: Stefania Montagnani (Italy)*

In vivo shock wave therapy, biological effects on the miocardium (L5)

09:45 - 09:55 *Johannes Holfeld, B. Kapeller, C. Tepeköylü, F. Hack, J. Dumfarth, D. Zimpfer, A. Rudisch, W. Schaden, U. Losert, M. Grimm, K. Macfelda (Austria)*

Shock wave therapy as an alternative to cardiac stem cell therapy - An In-Vitro examination (53)

09:55 - 10:05 *Hans-Jürgen Duchstein, K. Neumann, A. Bahr, H. G. Neuland (Germany)*

Further insights into possible mechanism of mechanotransduction (54)

10:05 - 10:15 *Johannes Holfeld, D. Zimpfer, A. Thomas, R. Rosenbek, J. Dumfarth, S. Aharinejad, U. Losert, R. Göschl, R. Schultheiss, W. Schaden, M. Grimm (Austria)*

Direct epicardial shock wave therapy in a porcine model of myocardial infarction - pre-clinical safety and feasibility aspects (55)

10:15 -10:25 *Julian A. Brañes, H. Contreras, M. Brañes (Chile)*

Neoangiogenesis or post-natal vasculogenesis induced by SW? (56)

10:25 - 10:45 **Discussion**

10:45 - 11:15 **Coffee break**

11:15 - 12:45 **Session 11: Miscellaneous II**

President: F. Sadile

Chairmen: **R. Saggini, R. Thiele**

11:15 - 11:30 *Lecture VI: Hisanori Suzuki (Italy)*

May anti-inflammatory effect of ESW involve nitric oxide system? (L6)

11:30 - 11:37 *Roberto Frairia, L. Serpe, R. Canaparo, L. Berta, M. Catalano, P. Tizzani, F. Molinaro, M. Berta (Italy)*

High energy shock waves for sonodynamic therapy: Efficacy in a syngeneic model of colon cancer (57)

11:37 - 11:44 *Richard Coombs, M. Hafez, M. Petrou, M. Hanna, M. Munshi, V. Asopa, K. Periyasami, A. Hafez, J. Coombs (Great Britain)*

The bactericidal effects of shock wave treatment for serious orthopaedic infections (58)

11:44 - 11:51 *Moustafa Hafez, R. Coombs, M. Petrou, M. Hanna, M. Munshi, V. Asopa, K. Periyasami, A. Hafez, J. Coombs (Great Britain)*

The use of shock wave treatment for treating MRSA An experimental study (59)

- 11:51 - 11:58 *Michael Petrou, R. Coombs, M. Hafez, M. Hanna, M. Munshi, V. Asopa, K. Periyasamy (Great Britain)*
The fungicidal effects of shock wave treatment (60)
- 11:58 - 12:05 *Dan Zin (Israel)*
In vitro effect of extracorporeal shock wave therapy on atherosclerotic arteries (61)
- 12:05 - 12:12 *Emanuele Astarita, G. Romano, A. Cozzolino, G. Busco, A. Soldati, A. Tartarone, S. Russo (Italy)*
Study protocol of vascular risk during ESWT (62)
- 12:12 - 12:19 *Ludger Gerdesmeyer, H. Gollwitzer, P. Diehl, L. Weil (Germany)*
Side effects of extracorporeal shock waves (63)
- 12:19 - 12:45 **Discussion**
- 12:45 - 13:35 **Session 12: ESWT for Skin Lesions**
President: **S. Russo**
Chairmen: **C. d'Agostini, W. Schaden**
- 12:45 - 12:55 *Andressa Silveira, J. Koenig, L. Arroyo, A. Brooks (Canada)*
Effects of unfocused extracorporeal shock wave therapy (ESWT) for the Healing of Distal Limb Wounds (64)
- 12:55 - 13:05 *Paulo Roberto Rockett, M. Lui, F. Camboim Rockett Brazil*
Shock wave therapy in perineal chronic pressure sore - Case report (65)
- 13:05 - 13:15 *Raoul Saggini, R.G. Bellomo, N. Scuderi, P. Fioramonti, A. Figus (Italy)*
Extracorporeal shock wave therapy for management of chronic ulcers in the lower extremities (66)
- 13:15 - 13:25 *Rainer Mittermayr, Ch. Kölpl, M. Pusch, W. Schaden (Austria)*
Summation of the experiences using defocused ESWT for chronic skin lesions in the Trauma Center Meidling (67)

13:25 - 13:35 Discussion

13:35 - 14:00 **Closing ceremony**

Closing addresses:

Sergio Russo (Past-President of the ISMST)

Invitation to the 13th Congress of the ISMST 2010 at Chicago (USA)

14:00 - 16:30 **Seminar:**

ESWT indications and modalities including muscle treatment

Markus Gleitz, Sergej Marx



Richard Wolf *PiezoWave*
– new therapy concept for
ESWT / TPST indications!

The new Richard Wolf **PiezoWave** gives you the option of universal application for numerous pain therapy indications. The ESWT / TPST system and its successful application not only means a high degree of patient satisfaction but also economic impulses and greater profitability in your practice.

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