



## FESSH TRAVEL AWARD 2017

Schweizer Paraplegiker Zentrum, Nottwil

Prof. Dr. Jan Fridén, Tetrahand Unit

1<sup>th</sup>-30<sup>th</sup> November, 2017



Schweizer  
Paraplegiker  
Zentrum

**Visiting fellow: Dr. Katalin Muraközy, Department of Traumatology and Hand Surgery, Kenézy University Hospital Debrecen, Hungary**

**The goal** of this fellowship was to get a complete overview of the field of tetrahand surgery including assessments, surgical techniques and rehabilitation protocols

**The Schweizer Paraplegiker Zentrum (SPZ)** is Europe's leading centre for paraplegia, spinal cord injuries (SCI) and neuro-orthopedic diseases. SPZ have a common objective of delivering holistic, lifelong care for patients.

Upper extremity reconstruction surgery has an important role in the management of tetraplegic patients. Upper extremity function, aside from the brain, is the most important functional resource of tetraplegic patients. It means improved quality of life and greater independency.

The tetrahand team has three surgeons, and three therapists (PT&OT), who work very close together. Every aspect of the therapy is well designed, and built on carefully planned protocols.

Scientific work plays an important role in their work, the protocols are based on clinical and biomechanical studies.



### Fellowship activities:



I attended the **8th Instructional Course on Reconstructive Tetraplegia Hand Surgery** on 26th-29th September organized by Jan Fridén and István Turcsányi. This three days course reviewed the current concepts in the surgical rehabilitation of upper extremities in patients with tetraplegia. A full day was spent on practicing surgical procedures in cadavers under the guidance of experienced instructors. We could discuss every arising problems along the dissections, and had useful tips, and warnings about the pitfalls. That course gave me invaluable insight, and solid foundations.

At my visit in SPZ I was very warmly welcomed by Professor Fridén, Dr. Gohritz, Dr. Schibli, and by the whole team. I attended the consultations, participated in surgeries, and the therapy sessions as well. I attended the consultations, participated in surgeries, and the therapy sessions as well. We had three days per week for consultations and two days OR time. I had the opportunity to assist in upper extremity reconstructions (alphabet procedures), nerve transfers (SPIN) and other smaller operations. I had the chance to follow the operated patients for weeks after surgery, and see the progress they made. At the consultations I could meet a wide spectrum of patients with upper extremity disorders and learned a lot about the different approaches to their conditions. I also visited the Kantonspital in Chur, and joined Dr. Schibli as she was operating on a spastic patient.



### **A Single-Stage Operation for Reconstruction of Flexion, Extension and Intrinsic Function in Tetraplegia – the Alphabet Procedure**

This procedure has several components, all of which may be used for each patient or some of which can be chosen based on the specific passive mobility or tenodesis pattern. It is concluded that this one-stage combination of operations can reliably provide grip, grasp, and release function. Improved suture technique and increased knowledge of tendon-to-tendon attachment mechanics provided confidence in the tendon attachment and allows early and rigorous active training of restored functions together with careful and guided mobilization of the tenodeses. Therefore the extensor and flexor side can be reconstructed as a one stage procedure, which was previously incompatible. Patient satisfaction is high, time and effort for patient and caregivers are less than the two stage operations.



#### **Personal experience:**

Personal relationship is extremely important in this population. You have to build trust and have to learn about your patients needs. Everybody has different priorities, and you have to personalize the treatment for that. This requires several meetings, and good communication.

Teamwork is the key : every member of the team plays an important role in the success, so you have to cwork on the treatment plan. If possible a surgeon and a therapist should attend every consultation together.

Non operative treatment is equally important as surgical procedures. To indicate surgery your patient has to be prepared also mentally and physically, and willing to go along the whole process.

#### **Acknowledgements:**

I'm really grateful for FESSH for this opportunity and the financial support.

I would like to thank the whole SPZ Hand Surgery Team for their friendly and supporting company, and for showing me the perfect teamwork.

Special thanks to Professor Fridén for his neverending patience to share his unbelievable knowledge and inspirational ideas with me.



Schweizer  
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Swiss Paraplegic Centre  
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Switzerland

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December 15<sup>th</sup>, 2017

**CERTIFICATION**  
**FESSH TRAVEL AWARD 2017**  
**Katalin Muraközy**

**Dr Katalin Muraközy, MD**, visited our Tetrahand surgery department at the Swiss Paraplegic Centre in Nottwil, Switzerland during the month of November 2017. The goal of her visit was to expand her knowledge in the field of reconstructive tetraplegia hand surgery.

Dr Muraközy focused on assessment, surgical procedures and rehabilitation of spinal cord injured patients with tetraplegia. She has been actively involved in pre and post-operative evaluations of more than 40 patients and assisting surgeon in several surgical reconstructions covering a substantial span of Tetrahand procedures e.g. complete grip and release reconstructions as well as spasticity-reducing surgeries.

Dr Muraközy has demonstrated not only good surgical performance but also professional and personal competence in her interaction with patients, colleagues and personnel.

It has been a pleasure to host Dr Katalin Muraközy. I would be happy to continue communicating with her and to help developing her skills in tetraplegia hand surgery.

Sincerely,

Jan Fridén, M.D., Ph.D.  
Professor of Hand Surgery

Expense report – 2017.Muraközy

Tetrahand Course	950 €
Accomodation (Nottwil, Chur)	963€
Fuel (3000km, 240l)	400€
Road fees	88€
Food	900€
<b>Summary</b>	<b>3301€</b>