## **ESO Department to Department Visit Programme Report**

Host Institute: Segeberger Kliniken, Bad Segeberg, Germany

Home Institute: National Institute of Clinical Neurosciences, Budapest, Hungary

Time of visit: 09 August - 03 September 2021

First, I would like to thank the European Stroke Organization and Prof. José M. Valdueza for this excellent educational opportunity at Segeberger Kliniken. I would also like to express my gratitude for the warm welcome I received from the team at the Departments of Neurology and Neurorehabilitation.

During the four weeks internship, I spent most of my time in the Neurosonology Laboratory, where we performed around 100 extracranial and transcranial doppler ultrasounds, as well as bubble tests for right-to-left shunt detection. With the guidance and supervision of Professor Valdueza, I had the opportunity to see the whole spectrum of vascular pathologies in stroke patients, such as arterial dissections, AV malformations, ICA origin or intracranial stenoses, and Halo sign in vasculitis.

I acquired new techniques which are not part of the daily practice in my home country, for example midbrain ultrasound for patients with movement disorders or contrast-enhanced transcranial dopplers for patients with no temporal bone window. The training provided detailed knowledge on vascular anatomy and advanced protocol for transcranial doppler ultrasound. This hands-on experience supported my theoretical knowledge to be used in practice and increased my confidence in diagnostics.

I was most fascinated by the complex way of thinking about ischaemic stroke subtypes and the thorough protocol of stroke etiology investigation. The different modalities of investigation, especially vascular imaging (CTA, MRA, DSA, ultrasound) findings were always integrated to reach the final diagnosis of each patient.

To further support the colleagues' development, Professor Valdueza led case presentations and neuroradiology sessions every week. These lectures gave an opportunity to learn about other central nervous system disorders besides stroke and further supported my knowledge and shaped my thinking as a professional.

After completing this internship, I could revise and develop the protocols of neurosonography examinations and bring the diagnostic workup of stroke patients to a higher standard in my home Institution.

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