

# REPORT ON THE 8TH NEUROLARYNGOLOGY WORKSHOP ON LARYNGEAL ELECTROMYOGRAPHY, 10–11 NOVEMBER 2022, JENA, GERMANY

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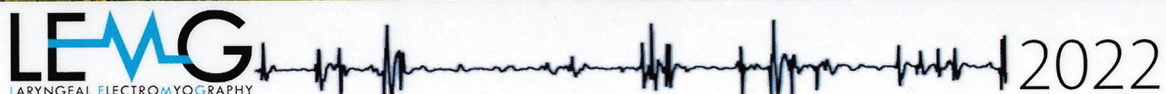
The 8th Neurolaryngology Workshop on Laryngeal Electromyography, organised under the auspices of the Working Group on Neurolaryngology of the European Laryngology Society, took place in Jena, Germany, from 10 to 11 November 2022. The main objective of the group is to promote laryngeal electromyography (LEMg) as a way to understand the action of the muscles and innervation of the larynx.

Every year the workshop take place in Jena, a university city with a long tradition. Among its lecturers have been Johann Wolfgang von Goethe and Friedrich Schiller. It is also the centre of the renowned Carl Zeiss optical industry.

This year's workshop theme was 'Therapeutic options for recurrent laryngeal nerve paralysis in children and adults'.

Lectures were given by Andreas H. Mueller (Gera), Karen B. Zur (Philadelphia), Yakubu Karagama (London), Tadeus Nawka (Berlin), Berit Schneider-Stickler (Vienna), Claus Pototschnig (Innsbruck), Gerd Fabian Volk (Jena), Gerhard Förster (Gera), Kathleen Klinge (Gera), and Orlando Guntinas-Lichius (Jena). The lecturers explained how electrophysiological examination of the larynx can help identify the most appropriate treatment method.

I was one of 8 active participants. There were also several listeners, both in-person and online. Lectures dealt with technical aspects of LEMg, as well as with contemporary diagnostic and therapeutic options for adults and children with laryngeal paralysis. Discussions made it possible to compare inter-centre experiences and identify future developments.



Participants of the 8th Neurolaryngology Workshop on Laryngeal Electromyography, Jena, Germany, 10–11 November 2022

Interesting reports were given on clinical research into laryngeal stimulators and the use of optogenetics in studying laryngeal disorders. Prototypes of training, diagnostic, and therapeutic devices were presented. Professor Muller demonstrated a model of an artificial larynx that could simulate the electrophysiological responses of the vocal fold abductor muscles, a device ideal for training in LEMG techniques. Professor Schneider-Stickler showed a diagnostic tool for stimulating the postcricoid region of the larynx, which can complement an LEMG diagnostic test when qualifying patients for laryngeal pacemaker surgery.

The second day of the course included a practical session. Each participant had the opportunity to practice anatomy on animal laryngeal preparations, practice laryngeal muscle puncture techniques under endoscopic control

on animal laryngeal preparations, and practice laryngeal muscle puncture techniques with recording of electromyographic signal on a live, anaesthetised pig. They could also practice electrical stimulation of the laryngeal abduction muscles on a live, anaesthetised pig or use a laryngeal model for LEMG and perform ultrasound examination of the larynx.

The exchange of knowledge and practical skills during the course helped in unifying standards for the diagnosis and electromyographic assessment of the larynx. Ideas were shared on what research is needed for development of modern patient therapies as well as how to better understand the processes occurring during reinnervation, an aspect that can only be observed using LEMG.