Foreword

Prof. Dr. Heinrich Matthys, President of DGP and IRCC, Abteilung Pneumologie (Robert-Koch-Klinik), Klinikum der Albert-Ludwigs-Universität Freiburg, Medizinische Universitätsklinik, Hugstetter Strasse 55, D-79106 Freiburg (Germany)

When preparing the 38th Congress of the German Society of Pneumology, which took place in Freiburg on March 5-8, 1997, it became evident that we had to celebrate two major contributions of our medical school to respiratory medicine: (1) 30 years of research into the obstructive sleep apnea syndrome [1], and (2) 100 years of bronchoscopy [2].

Obviously, Killian cannot tell us anymore the true story of how he managed to pass the first bronchoscope into his patients’ bronchial trees rescuing them from aspirated foreign body complications [3]. However, some of the pioneers in the treatment of obstructive sleep apnea syndrome are still alive, and among them Dr. Kuhl (Wiesbaden) and Dr. Lugaresi (Bologna) whom we met with special pleasure. They gave us an original account of when and how everything started in sleep medicine. Their experience will be documented in this volume.

Tracheostomy was the first treatment of this syndrome. The upper airways were bypassed in a patient with Pickwickian disease which obviously demonstrated that the authors [4, 5] understood the key pathophysiology of what we call today obstructive sleep apnea syndrome. After the first excitement about tracheostomy, sleep research in Freiburg became quiescent again. It was not until my arrival in Freiburg in 1976 that my coworkers K.H. Rühle and J. Fischer and I resumed Jung and Kuhl’s [6] studies with nocturnal measurements in patients with sleep-related breathing disorders. We inherited the unique polysomnographic equipment of Prof. Jung’s collaborators who all had left Freiburg and/or sleep medicine. We dusted the original EISAGRAPh (fig. 1), a device developed by Jung and Kuhl and their engineers Tönnies and Griebl for the analysis of respiration, EMG and EEG frequencies. We started again with the old equipment, including measurements of cough frequencies and pulmonary hemodynamics during sleep in patients with chronic obstructive pulmonary disease, asthma, and sleep apnea syndrome. Fig. 1. One of the first polysomnographs, the EISAGRAPh (EEG Interval Spectrum Analysis) developed by Drs Jung and Kuhl(o) with the engineers Tönnies and Griebl to record EEG and respiration during sleep (1967).

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E-Mail karger@karger.ch Fax + 4161306 12 34 http://www.karger.ch
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Upper airway obstruction – from snoring to recurrent apneas – causes arousals, leading to sleep deprivation with reduced vigilance and daytime somnolence. The mortality of these patients increases considerably between 40 and 60 years of age due to road accidents, pulmonary and systemic hypertension, cardiac arrhythmias and cerebral strokes. Untreated, 40% of sleep apnea
patients die within 10 years of diagnosis. The social decline and family problems of our patients may also be attributed to the sleep apnea syndrome. It is still too often ignored or underestimated by many doctors and textbooks of medicine despite the fact that the prevalence of sleep apnea syndrome equals that of diabetes. Today’s technical possibilities of measuring polysomnographic data and treating periodic breathing during sleep noninvasively showed that a snorer is more than a disturbing bed partner, and sleep is for many patients more dangerous than recreational.

Research will continue to enlighten the struggle between sleep and breathing keeping the affected individuals life line for oxygen to the lung open night after night.

I am thankful to all authors of the session ‘30 Years of Sleep Apnea Syndrome’, that they accepted the invitation to give their lectures on this important medical problem, and even more, to give their manuscripts for this publication.

References

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Matthys