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## News and announcements

## Report of the Workshop on the Scoring and Clinical Applications of the Cyclic Alternating Pattern Parma, Italy, November 27–29, 2000

A 3-day Interactive Workshop on the Scoring and Clinical Applications of the Cyclic Alternating Pattern (CAP) Parameters was held in Parma (Italy) on November 27-29, 2000. The meeting was organized by Mario Giovanni Terzano, with the collaboration of Liborio Parrino and supported by an educational grant from Sanofi-Synthelabo. Christian Guilleminault and the local organizer chaired the Workshop, which saw the participation of Ronald Chervin, Sudhansu Chokroverty, Max Hirshkowitz, Mark Mahowald, Harvey Moldofsky, Robert J. Thomas and Art Walters, all invited for their renowned expertise in sleep microstructure. Agostino Rosa, a specialist in EEG signal analysis who has been working long-term on dedicated software for the automatic detection of CAP, also took part in the Workshop. For the last few years, the investigation of CAP had been successfully applied to several fields of sleep medicine. A number of North American clinicians and researchers thought it was time to have direct access to the scoring procedures of CAP in order to acquire the rules and be able to apply them in their own labs. The necessity to take a look at the sleep recordings on which the CAP methodology was regularly applied made it necessary to hold the meeting at the Sleep Disorders Center of Parma University.

The Workshop was opened on the afternoon of the 27th by two presentations (Guilleminault and Parrino), which meant to highlight the similarities and the differences between ASDA arousals and CAP. Among the other aspects taken into consideration, attention focused on the activation effects of K-complexes and delta bursts on autonomic functions, the slow-fast EEG

components recognizable within the ASDA arousals, the periodic distribution of arousals within NREM sleep. Despite moments of highly divergent positions, what emerged was a lively and productive discussion, which gave the opportunity to deepen the knowledge of the issues at stake, also in the light of the recent studies on cellular and clinical neurophysiology.

November 28th was devoted to the direct observation of polysomnographic recordings including normal sleep, sleep apnea syndrome, CPAP titration, insomnia before and after drug treatment, epilepsy, periodic limb movements. The possibility to accomplish a manual scoring both on paper and on the screen made it possible for all participants to directly learn the techniques of CAP detection. The clinical applications of CAP and some participant's personal data marked the brainstorming of the afternoon and set the premises for discussing the next day the strategies for dissemination and expansion of the CAP methodology and research. Several suggestions have been made for implementation in 2001 and all experts agreed on the proposal to produce a CAP Atlas providing examples and clear-cut definitions shared by the Workshop participants.

The chance to discuss scientific topics face to face within a small group of experts was particularly stimulating and highly appreciated. The 3-day side-by-side working experience based on a balanced distribution of theoretical presentations and practical sessions allowed each participant to speak, interact and offer personal viewpoints. The initial conflicts gradually shifted into the final agreement that CAP methodology can supply unexpected opportunities for clinical diagnosis and insights on sleep-related mechanisms that would other-

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wise remain obscure. In the perspective of future collaboration, software for the automatic scoring of CAP was presented by Agostino Rosa, who offered to make the system available for all the participants. Last but not least, the tasteful food of Parma enriched with fine Italian wines contributed to softening the controversies, raising the hopes and making the Workshop a really memorable event.