

HOW DRUGS INFLUENCE NEUROREHABILITATION?

Klaus R.H. von Wild

Germany

Statement of the commentator: The former concept of specifically targeted medical therapies (e.g. specific molecules and /or theories of anti-inflammatory agents) to restore severely disturbed higher cortical functioning and to enhance and support restoration in the fields of mental cognitive and physical disturbances has failed. More or less all clinical studies including double blinded prospective, carefully guided cooperative studies did not give evidence of total understanding of the underlying pathophysiology and biochemistry. This is true and has been critically reviewed recently for TBI treatment and prognosis, in subarachnoid hemorrhages and subdural hematomas as well as for spinal cord injury and for stroke medical management.

In contrary, this session will emphasize that the concept of multimodal drugs is of high importance and represents the future practice. In this respect, the positively statement of Prof. D. Muresanu will open up a new venue of biochemical understanding of primary and secondary cell damages and cell protection and recovery. He will explain in detail and which kind of drugs exemplarily could interfere with pathophysiological processes as to stop cell death and to support in addition CNS protection in combination with nerve recovery and regeneration.

Prof. Volker Hömberg will explicit stress the negative effects of some drug compounds, e.g. anticonvulsant drugs, which have been shown to negatively influence and even hinder neuroplasticity and regeneration processes in the sense of an adverse effect on CNS plasticity. Therefore, both presentations underline the importance of both parties in these debates, since medical treatment is an important adjunct in neurorehabilitation as it will be exemplarily demonstrated.