Ipsative Electroencephalographic Trend Assessment (ITA)

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There are no two persons in the world which would show an identical EEG. The EEG patterning under resting conditions is highly specific for each individual person. Conventionally, frequency and amplitude behaviour of the electrical transients as well as their topographical distribution are regarded as the main distinguishing features. But with regard to the resting EEG there exists an other generally neglected distinguishing feature. Though already described more than 70 years ago, EEG research has hitherto hardly taken notice of to the lawfully changing EEG patterns along with ongoing recording time. Comparable recording conditions provided, individuals exhibit a high test-retest reliability in this respect. The dynamics of the resting EEG correspond to a decline of the **EEG-vigilance** level and are highly sensitive to an impairment of brain function. **EEG vigilance** shows only moderate correlation with alertness (or vigilance in the psychological sense of "alertness" or "sustained attention".

From our undisputed premises follows a strong need to develop a measurement procedure that allows an objective assessment of **changes** between consecutively performed recordings, for example within the course of illness. This is in accordance with our assumption of the EEG as a valid macroindicator of "**cerebral global activity**" (in the sense of D. Bente). Based on this well proved working hypothesis we developed **I**psative **T**rend **A**ssessment (**ITA**) as a clinically useful tool. This tool has been modified and stepwise refined over a couple of years. The software solution was introduced under the acronym **ITA** (**I**psative **T**rend **A**ssessment, www. wischsoft.de).

ITA claims to objectify improvement or deterioration of all clinical conditions involving the central nervous system directly or indirectly.

ITA fulfils a desideratum, existing since long, namely to advance the conventionally eye-ball evaluated EEG towards a physically and thus objectively tool of measurement. **ITA** stood the test within a far range of patients with psychiatric diagnoses (e. g. dementia, affective psychoses, addiction etc.). It also has proved suitable in research making use of the so-called test dose model (e. g. pre/post comparisons of methylphenidate effect in persons with suspected ADHD (see www.wischsoft.de).