

41. REM SLEEP AND MEMORY. MEMORY DISORDERS IN SLEEP PATHOLOGY

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Introduction: REM sleep has a great influence on the development of memory, due to intense brain activity and to metabolism which can be increased up to 20%. Special sequences of declarative memory are reorganized during sleep, being reflected by changes of activity in brain during the subsequent consolidation of memory.

Propose and Objectives: To highlight the importance of sleep on memory and to mention the memory disorders that include sleep pathology.

Results: One of the theories of REM sleep and memory (described by Roffwarg, Musio and Dement in 1966) suggests that repetitive neuronal activity during REM sleep of the fetuses is associated with the development and their growth; the same synaptic reorganization continues in adults during REM sleep, so the information is recalled due to repetitive use of it in the circuit that stores the information. Cholinomimetic drugs (with an action similar to acetylcholine) increase the frequency of the REM sleep episodes. Therefore it was assumed that large neurons that secrete acetylcholine, located in the upper brainstem, could activate multiple brain areas. Theoretically this could be the cause of the hyperactivity met in different brain regions during REM sleep. The mechanism that allows memory consolidation through neural activity can be found in the hippocampus, a well-established brain region to memory. In this region, during REM sleep, are observed EEG theta waves that help to transfer the information to the neocortex. Have been observed that the sleep pathology as apnea, insomnia, generates memory disorders, it forms an imbalance in the duration of the REM sleep and its quality.

Conclusion: The relationship between reverberation brain and memory consolidation still remains unclear, just some aspects of this link were studied till now. Due to the fact that neuronal reactivation during REM sleep was proved and it is sustained for long period of time, providing a mechanism for increasing the memory until it is stored effectively, it is to be asserted the importance of this process that allows the brain to process the new information during the day.

Keywords: REM sleep, memory, sleep pathology

42. VARIABILITY OF THE EXTRACRANIAL BRANCHES OF THE FACIAL NERVE (MORPHO-CLINICAL ASPECTS)

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Introduction: Numerical and trajectory variability of facial nerve branches is one of the main causes of failed surgery, which determine neurologists and surgeons to perform systematic studies of variants of branching path and extracranial portion of the facial nerve.

Purpose and Objectives: To study the variability of the extracranial facial nerve branches and create morphological path way maps of facial nerve.

Material and methods: The variants of branching of the extracranial part of the facial nerve were studied in 12 anatomical parts.

Results: The facial nerve variants branching of two primary trunks and cervicofacial temporofacial was predominant in 10 cases out of 12 studied cases, nerve trifurcation was observed only in one case, as evidenced by the case of the nerve branch fan-shaped. The length of the predominant average criteria was in eight cases, followed by three short length and long-term cases in a single case. In five cases the nerve trunk had an upward trajectory, in four cases the trajectory was downward and in three cases there was a horizontal trajectory. In eight cases predominate thick upper torso (temporofacial), in three cases by thick trunks were equal and only in one case the