

Influence of Respiration on Cerebrospinal Fluid Dynamics

Objectives

Clarify the basic biomechanical connection between respiration and pressure changes CSF i.e. changes in intracranial pressure (ICP), in karniospinální area respectively. concretely demonstrate respiration influence on the course of ICP curve.

methods Used

The work was processed on a selected group of individuals in the form of an experimental study.

Measurement

It was applied to patients under anesthesia and without anesthesia. Pressure signals were scanned using sensors Codman hospital. Were measured waveforms ICP, central venous (CVP), arterial (SAP) and respiratory pressure (RP).

Data were analyzed by these methods - filter analysis, spectral analysis and calculating correlations.

Results and conclusions

Effect on respiration waveforms ICP and CVP was successfully demonstrated by using the above methods.

Keywords

CSF, cerebrospinal fluid biomechanics, CSF dynamics respiration.