The Noninvasive Intracranial Pressure in Patients with Intracranial Hypertension

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Editorial

I, Nicollas Nunes Rabelo, certify that this manuscript is a unique submission and is not being considered for publication, in part or in full, with any other source in any medium. Noninvasive methods of the measurement of the ICP are available as the B4C sensor (Brain4care), noninvasive model to monitor intracranial compliance. This model can detect the ICP waveform (ICPwf). The ICPwf is formed by 3 components: P1 (cardiac systole), P2 (tidal wave), and P3 (venous return and diastole). This model is formed by an extensometer installed on a mechanical device that touches the scalp surface in the front parietal area. Clinical results showed that this noninvasive technology as a method of evaluation and patient’s follow-up can help with better outcomes as an important piece of the diagnostic puzzle, avoiding the risk of complication of invasive methods. A study conducted by Mascaren has et al. [1] showed that the increase in ICP induces linear volumetric variations of the cranial skull, characterizing it as a semi-rigid structure, which allows non-invasive monitoring of ICP mechanically. These variations can be represented by waveforms detected from sensors positioned on the patient’s scalp. This method it is easy to use and shows instantly results. In our practice in Hospital and with outpatients it is possible to have more accurate conduct, by analyzing the ICPwf associating with the patient’s clinic real time, without any extra costs. When we have a non-invasive system available, a better understanding of the natural history of the patient’s disease is achieved.

References