Accuracy of power mode transcranial Doppler in the diagnosis of brain death

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Background: The diagnosis of brain death (BD) is complex. For this reason, we aimed to evaluate the accuracy of power mode transcranial Doppler (PMD-TCD) in diagnosing BD. Patients and methods: Patients admitted to an intensive care unit between December 2003 and January 2012 were included in this study if they were in a structural coma, had no craniectomy, and were evaluated blind by a neurologist using PMD-TCD. The diagnosis of BD was based on an evaluation that took into consideration the absence of sedative drugs, a median blood pressure >60mmHg, a body temperature >35°C, and the absence of brainstem reflexes. A neurosonologist followed a protocol using PMD-TCD that considered the examination as positive for brain circulatory arrest given the presence of reverberating, small systolic peaks or the disappearance of a previous signal present in both middle cerebral arteries and intracranial vertebral arteries. Results: A total of 74 patients were evaluated. In 61 (82.4%) patien