

Spinal reflexes as a barrier for family consent

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Background: Brain death (BD) refers to the non-returnable loss of brain function, including the cortex, subcortical layers, and brain stem. Whereas the spinal cord is considered as part of the extra cranial nervous system that is less affected by the damage causes, this can lead to some reflexes and spontaneous spinal movements, which is not a reason to rule out BD. Past studies showed that between 30%–70% of BD cases have spinal reflexes. The purpose of this study is to investigate the consequences of observing these movements in the acceptance of death, the level of satisfaction and emotional behaviors of the family in the donation process.

Methods: In 2021–2020, 30 cases of BD were evaluated in terms of spinal reflexes and the level of consent to donation by the Organ Procurement Unit of Shahid Beheshti University of Medical Sciences, Iran.

Results: According to observations, among the 30 BD cases with mean age of ± 34 years, 11 (36.7%) had spinal reflexes, of which six were Lazarus, two were Babinski, one was simultaneous movement of one arm and one leg, and one was a 5-year-old female child who had shoulder flexion. Among the mentioned cases, only one case was not donated due to family refusal and non-acceptance of death by the family. There was not significant difference in spinal refusal in both gender and any ages.

Conclusions: In addition to being careful in the examinations, the coordinators must explain to the BD families the cause of spinal reflexes in order to prevent misunderstanding toward death. However, the final decision depends on the family attitude and coordinator capability. The performance of the coordinators in the process family approach and management of high-risk situation including the presence of spinal reflexes are key elements to get family consent.

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