The diagnosis of cerebral injury currently relies on clinical neurological examination, computed axial tomography (CT), or magnetic resonance imaging (MRI). However, these methods are unsuitable for patients during cardiac surgery; even immediately afterwards, the patients may be unconscious, sedated and ventilated or haemodynamically unstable, and therefore unable to co-operate. Thus, the identification of a biochemical serum marker to assist in the diagnosis of cerebral injury would be potentially useful [1].

In this talk I am going to describe S100β protein and neurospecific enolase (NSE) as early markers of brain damage during cardiac surgery with CPB. The different release patterns of both markers during cardiac surgery will be described. Also, their relationship with neurological and neuropsychological outcome after cardiac surgery will be explained. Furthermore, the limitations of their use as markers of cerebral damage after CPB will be described [2].

References