

N20 inversion wave

The typical N20-P20 phase reversal shows a transitional waveform recorded directly over the [central sulcus](#). Especially, in large [precentral gyrus](#) and [central sulcus](#) lesions some reduction of amplitudes was seen in frontal recordings, or the N20-P20 waves were broadened and deformed, although a clear phase reversal was obtained ¹⁾.

Intraoperative confirmation is done with cortical stimulation CS and N20 inversion wave for cortical structures and with subcortical stimulation sCS for subcortical pathways. With this protocol Gonzalez et al. achieved a mean of 90% of volumetric resection in cortical and subcortical tumors located in eloquent [motor areas](#) with an increase of neurological deficits in the immediate postoperative period that significantly decreased one month later. Ongoing studies will define the safe limits for functional resection taking into account the intraoperative brain shift. Finally, it must be demonstrated if this protocol has any benefit for patients concerning disease free or overall survival ²⁾.

Somatosensory evoked potentials: [Brain death](#) confirmed by the bilateral absence of N20-P22 response with median nerve stimulation. The recordings should adhere to the minimal technical criteria for somatosensory evoked potential recording in suspected brain death as adopted by the American Electroencephalographic Society.

1)

<http://jnnp.bmj.com/content/72/2/221.full>

2)

González-Darder JM, González-López P, Talamantes-Escribá F, García-March G, Roldán-Badía P, Quilis-Quesada V, Verdú-López F, Bordes-García V, Botella-Maciá L, Masbout G, Cortés-Doñate V, Belloch-Ugarte V. [Treatment of intrinsic brain tumors located in motor eloquent areas. Results of a protocol based in navigation, tractography and neurophysiological monitoring of cortical and subcortical structures]. Neurocirugia (Astur). 2011 Feb;22(1):23-35. Spanish. PubMed PMID: 21384082.

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