2025/06/29 02:29 1/1 stereoencephalography

The stereoencephalography of Jean Talairach (SEG) makes it possible to obtain an individualized anatomofunctional map, based on the proportion of the telencephalum with an inter-commissurual line CA-CP. The aim of this paper was to design a method for the preparation of these maps, without need for the use of stereotactic equipment, and to apply this to the anatomofunctional localization of cortico-subcortical lesions. With the aid of a CAD programme (AUTOCAD v. 11), the images obtained using magnetic resonance (MR), with visualisation of the CA-AP line, skull X-ray (Rx) and cerebral angiograph (ADS) were superimposed. This was subsequently squared, as suggested by Talairach, permitting comparison between the maps (by standardization of the CA-CP line at 25 mm.) or with a stereotactic map. A total of 104 patients were studied, divided into three groups: A. Control 10 patients with slight HSA, with no ADS pathology. B. Resection of the lesion. 38 patients with vascular lesions (30) or benign tumours of less than 3mm (8). C. Epilepsy. 56 patients with drug-resistant epilepsy, with or without a visible lesion on RM (26 and 30 patients respectively). Outstanding amongst the results obtained were: confirmation of the close relationship of the telencephalum with the CA-AP line. Using our method there was great precision in superimposing anatomical structures. There was an error of less than 0.5cm in superimposing the corpus callosum and the pericallosum artery or Galen's vein. This made it possible for us (in group B) to localize subcortical lesions larger than 1cm without using a stereotaxic guide. In these cases we were guided by the cortical venous pattern which led to the lesion. In group C, use of these maps allowed us to obtain a functional surgical document exactly the same as the anatomofunctional maps of the SEG of Talairach 1).

1)

Pulido Rivas P, Sola RG. [Anatomo-functional localization in cerebral cortex. Application of imaging systems as a guide for resection of cortical lesions]. Rev Neurol. 1996;24 Suppl 1:S5-61. Spanish. PubMed PMID: 9053275.

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