

A [retrospective study](#) of Department of Neurosurgery, [Son Espases University Hospital](#) and [University Hospital of Salamanca](#), evaluated 407 [patients](#) who underwent [stereotactic](#) biopsies in the past 34 years. The surgical [methodology](#) changed through time, distinguished by three distinct periods. Different stereotactic [frames](#) ([Todd-Wells](#), [CRW](#), [Leksell](#)), neuroimaging tests, and planning programs were used. Using SPSS software v.23, we analyzed a total of 50 variables for each case.

The series included 265 men (65.1%) and 142 women (34.9%) (average age 53.8 years). The diagnostic yield was 90.4%, morbidity was 5.65% ($n = 17$), and mortality was 0.98% ($n = 4$). Intraoperative biopsy improved accuracy ($p = 0.024$). Biopsies of deep lesions ($p = 0.043$), without contrast enhancement ($p = 0.004$), edema ($p = 0.036$), extensive necrosis ($p = 0.028$), or a large cystic component ($p = 0.023$) resulted in a worse diagnostic yield. Neurosurgeons inexperienced in stereotactic techniques obtained more nondiagnostic biopsies ($p = 0.043$). Experience was the clearest predictive factor of diagnostic yield (odds ratio: 4.049).

Increased experience in stereotactic techniques, use of the most suitable magnetic resonance imaging sequences during biopsy planning, and intraoperative evaluation of the sample before finalizing the collection are recommended features and ways to improve the diagnostic yield of this technique ¹⁾.

¹⁾

Lara-Almunia M, Hernandez-Vicente J. Frame-based Stereotactic Biopsy: Description and Association of Anatomical, Radiologic, and Surgical Variables with Diagnostic Yield in a Series of 407 Cases. *J Neurol Surg A Cent Eur Neurosurg*. 2019 Jan 17. doi: 10.1055/s-0038-1676597. [Epub ahead of print] PubMed PMID: 30654404.

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