



Role of Intraoperative Ultrasonography on Neocortical Brain Tumor Surgery

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Abstract

Objective: Among imaging modalities, ultrasonography (US) is one of the most versatile choice, with its low cost, lack of radiation exposure, and minimally disrupted surgery flow. We described the use and characteristics of intraoperative ultrasonography (US) in selected cases in our center to assist the intracranial tumor resection.

Methods : Seventy patients were operated from 2011 to 2018 at Kariadi Hospital with the help of intraoperative US. Fifty six percents of cases were cystic tumors, 25% were abscess and 19% were metastatic tumors. We used seven parameters to measure the utility of intraoperative US and a utility score was devised (0 minimum, 7 maximum).

Results: The utility score for intraoperative US was 7 in 3 cases (4%), 6 in 28 cases (54%), 5 in 21 cases (31%), 4 in 8 cases (11%), while no case had score ≤ 3 .

Conclusion: Intraoperative US is not only helpful in localizing lesions but also it can be used in determining the morphology of the lesion for some cases, which was glioma in our case. Intraoperative US is also helpful when to start planning the site of entry and complete resection.

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