## البحث الأول

عنوان البحث باللغة الانجليزية:

## Role of intraoperative cranial ultrasonography in detection of residual brain lesions during surgery

ملخص البحث باللغة الإنجليزية:

## **Abstract:**

**Background**: The use of IOUS is increasingly common in recent neurosurgical practice. IOUS has become very valuable in neurosurgery. It plays a key role in the localization of space-occupying lesion location and decreasing operation time and hence improves both surgical efciency and safety. Ultrasound is very useful in the determination of the lesion location, its most superfeial portion, and in differentiation between solid tumors and cystic components.

**Results:** Intraoperative ultrasonography has a significant edge over the other intraoperative aids for image guidance in brain surgery, especially in terms of independence, cost, and adaptability to multiple different clinical scenarios. Ultrasound-based neuro-navigation is an easy-to-use, fast, and safe technique of real-time imaging for various neurosurgical procedures.

**Conclusion**: We conclude that ultrasound-based neuro-navigation is an easy-to-use, fast, and safe technique of realtime imaging for various neurosurgical procedures.