Attainment of neuromicrosurgical skills is a challenge in teaching hospitals throughout training. Models that mimic the workflow, as well as haptics, are time-consuming, expensive, unsuitable to serve as a routine platform.

Presenting a model and a set of tasks, based upon a hard-boiled egg, microscope and a cavitron ultrasonic aspirator (CUSA), which is cheap, easy to set up, and can be used for training microsurgery and CUSA skills, required for removal of deep-seated tumors.

The goal was to remove the egg yolk from within a hard-boiled egg, representing an intrinsic brain tumor, surrounded by the egg's white, representing adjacent brain tissue while preserving it. The assessment was based on the yolk's exposure, completeness of removal and collateral damage, and task completion duration, with repeated trials (N=4), for validation purposes, for 6 operators with different experience levels.

Improvement in overall score (mean of 47.5±19 in the 1st trial vs 80.0±12 in the 4th trial, $p<0.01$), and task duration completion (mean initial duration of 21:25±4:52 minutes to 15:30±5:17 minutes, $p<0.01$) was observed. Parameters gradually improved on repeated attempts and the experience level of the operators correlated with scores.

The egg model is an easy-to-handle, cheap model that enables the acquisition of basic micro-neurosurgical skills and basic workflow required for removing intrinsic brain tumors. The study of Doron et al. has validated and defined reproducible tasks that can be scored, correlated with performance. This model can be incorporated into a resident's routine and potentially provide an accessible training platform for neurosurgical trainees [1)].

1)
Doron O, Langer DJ, Paldor I. Acquisition of Basic Micro Neurosurgical Skills Using Cavitron Ultrasonic Aspirator in Low Cost Readily Available Models: The Egg Model. World Neurosurg. 2021 May 12:S1878-8750(21)00708-7. doi: 10.1016/j.wneu.2021.05.013. Epub ahead of print. PMID: 33991732.