Objective assessment of simulation-based microvascular surgical training

Dear Editor:

Ricardo Baroudi - Editor-in-Chief of the Brazilian Journal of Plastic Surgery

Concerning the article entitled “Practical model for microvascular anastomosis training”1 by Fraga et al., published in edition 27(2) of the Brazilian Journal of Plastic Surgery, we would like to add some information concerning the objective assessment of simulation-based microvascular surgical training.

Over the last few years, the Halstedian model of surgical training (“See one, do one, teach one”) has been replaced with a methodology of simulation-based surgical skill development (“Do one, teach one”). In this context, besides the remarkable commitment of several institutions toward the improvement of different bench models (or simulators) that enable the refinement of surgical skills, such as the model prepared with surgical pieces discarded from abdominoplasties, which is reported by the authors1, it is important to highlight the significance of assessing the simulated acquisition of surgical skills3.

In the Halstedian model, residents learn and train their skills with patients, under the supervision of a tutor, who subjectively determines the point when they had achieved technical proficiency3. Meanwhile, in surgical skill simulated teaching, tutor observation must follow fixed criteria (objective assessment)3. Therefore, surgical training programs must objectively assess the acquisition of technical skills of all those (e.g., resident physicians) in training2. Several tools have been described for this purpose4-6, and specific rating scales have been used for measuring microsurgical skills4-6, such as the Structured Assessment of Microsurgery Skills (SAMS)4, the University of Western Ontario Microsurgical Acquisition/Assessment (UWOMSA)5, and the Objective Structured Assessment of Technical Skills (OSATS), which have been adapted for the assessment of microvascular anastomosis6.

With such tools4-6, skill level can be assessed and shortcomings can be identified in order to provide feedback, with the aim of improving microsurgical training, both of individual skills (e.g., handling of surgical instruments, knots, and sutures) and complex procedures such as the preparation of microvascular anastomoses, which is described by the authors1. Toward this purpose and by using the aforementioned rating scales4-6, tutors may provide an objective assessment, during and at the end of the whole training process, for each specific microsurgical skill in order to measure the level of acquisition of the compe-
REFERENCES


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