Letter to the Editor ●●●●

Objective assessment of simulation–based microvascular surgical training

Avaliação objetiva do treinamento cirúrgico microvascular baseado em simulação

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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")[2]. 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 authors[1], it is important to highlight the significance of assessing the simulated acquisition of surgical skills[3].

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 proficiency[3]. 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 training[3]. Several tools have been described for this purpose[3], and specific rating scales have been used for measuring microsurgical skills[4-6], 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 anastomosis[6].

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With such tools[4-6], 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 authors[1]. Toward this purpose and by using the aforementioned rating scales[4-6], 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-

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tencies taught and to monitor, during the subsequent sessions, the skill gain of resident physicians, always identifying the specific points that deserve greater attention among those assessed (variable according to the rating scale used[4-6]). This assessment may be performed in real time, or performances may be recorded for later assessment so that constructive feedback may be given without affecting results[4,5].

We thank the authors for their contribution toward simulation–based microsurgical skill training.

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