Feasibility of a simulator for breast surgery training


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BACKGROUND
Over time, breast cancer surgical treatment has evolved, and oncoplastic breast surgery has been integrated and become a gold standard in breast surgery. To indicate and to perform the best potential of those techniques is crucial training. The aim of this study is to present and to discuss the feasibility of mastotrainers. Simulators, made of neoderm, developed to improve surgical skills in breast surgery.

OBJECTIVES
The aim of this study is to present and discuss the feasibility of mastotrainers. Simulators, made of neoderm, developed to improve surgical skills in breast surgery.

METHODS
A breast surgery course was organized during 6 modules. Four kinds of mastotrainer were used for practicing different surgical techniques. Most of the techniques were never used in the simulator before. The first with small breast is ideal to train conservative mastectomies and additive mammoplasty. The model 2 is able to train different breast oncoplastic techniques as well as inferior pedicle, superior pedicle, and round block techniques. The model 3, medium size breast, is good for training asymmetry corrections and to practice mastopexy techniques. The fourth model, the last version, is perfect to allow different techniques specially for reduction mammoplasty and several different oncoplastic breast surgeries techniques. It is possible to simulate tumors at different sites of the breast and to train fat grafting techniques and nipple reconstruction. At the end, a survey was applied to the attendees to receive a feedback regarding this training experience.

RESULTS
After 6 modules, the participants were able to perform various techniques of oncoplastic breast surgery: round block technique, dermo-glandular flaps, upper pedicle, inferior pedicle, super medial pedicle, lateral pedicle, conservative mastectomies, total muscle pocket for implants, muscular partial pocket for implants, use of expanders, use of definitive expanders, use of silicone implants, use of mesh for tissue reinforcement, use of adhesive suture, local flaps for nipple reconstruction, additive mammoplasty, and finally, with model association biological, they could practice the technique of fat grafting. The survey revealed the high level of achievement and satisfaction of the participants.

CONCLUSION
The use of mastotrainer is safe and feasible. It allows the practice of many surgical techniques. It is strongly able to help breast surgeons to develop and to improve their surgical skills with high levels of learning satisfaction.

REFERENCES
3. https://www.youtube.com/watch?v=eNOCUEfJIIg