Learning flaps on a new hyper realistic cadaveric model. Learner feedback about 8 cases on a Simlife® model.

A. JULIENNE, C. BREQUE, JP. FAURE, JP. RICHER, FM. LECLERE
State of the art

- Theory and practice
- Cadaveric subject
- Hands-on training
- Halstead’s model
SimLife® Model

Journal of Visceral Surgery
Volume 154, Issue 1, February 2017, Pages 15-20

Original article
SimLife a new model of simulation using a pulsated revascularized and reventilated cadaver for surgical education


https://doi.org/10.1016/j.viscsurg.2016.06.006

Referred to by

Enseignement chirurgical par simulation : SimLife : un modèle cadavérique humain revascularisé...
Journal de Chirurgie Viscérale, Volume 154, Issue 1, February 2017, Pages 15-21

Surgical and Radiologic Anatomy

SIM Life: a new surgical simulation device using a human perfused cadaver

J. P. Faure, C. Brique, J. Danion, P. O. Delpech, D. Oriot, J. P. Richer
Simlife® Model

- Fresh cadavers
- Reventilation
- Pulsatile reperfusion with patented liquid
- Adjustable pressures, blood loss quantification
Applications

• Organ harvesting training
• Damage Control
• Paediatric robotic surgery
• Neurosurgery
Material and Method

• Prospective Study: 2019, 1st of February until October the 31th
• 8 antebrachials flaps
• Surgical Time and Blood loss were evaluated
## Results

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<td>2.Allen’s test</td>
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<td>3.Drawings</td>
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<td>4.Asepsy</td>
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<td>5.Prox and flap incision</td>
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<td>6.Communicant dissection</td>
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<td>10.Individualisation and coagulation of collaterals</td>
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<tr>
<td>Blood loss (ml)</td>
<td>400</td>
<td>250</td>
<td>180</td>
<td>120</td>
<td>150</td>
<td>100</td>
<td>90</td>
<td>80</td>
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</tbody>
</table>

- **Mean blood loss (ml):** 171,25 ± 108,026121
- **Mean operating time (mn):** 90,5 ± 11,625096
Video
Discussion: Limits

- Cost
- Haemostasis
- Absence of vascular tonus
- Microcapilar permeability
Interests

- Hyper realistic simulation
- Flap bleeding
- Electrocoagulation
- Variations of vascular pressure
- Tools for objective evaluation
Take home message

• Other flaps
• Advanced procedures
• Microsurgery
Thank you for your attention