

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

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# State of the art

- Theory and practice
- Cadaveric subject
- Hands-on training
- Halstead's model

# Simlife® Model



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Original article

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

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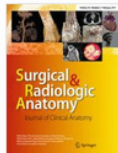
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## SIM Life: a new surgical simulation device using a human perfused cadaver

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Teaching Anatomy

First Online: 17 June 2016

1

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# Simlife® Model

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

**ABS**Lab  
ANATOMY BIOMECHANICS SIMULATION Laboratory



**SIMEDYS**

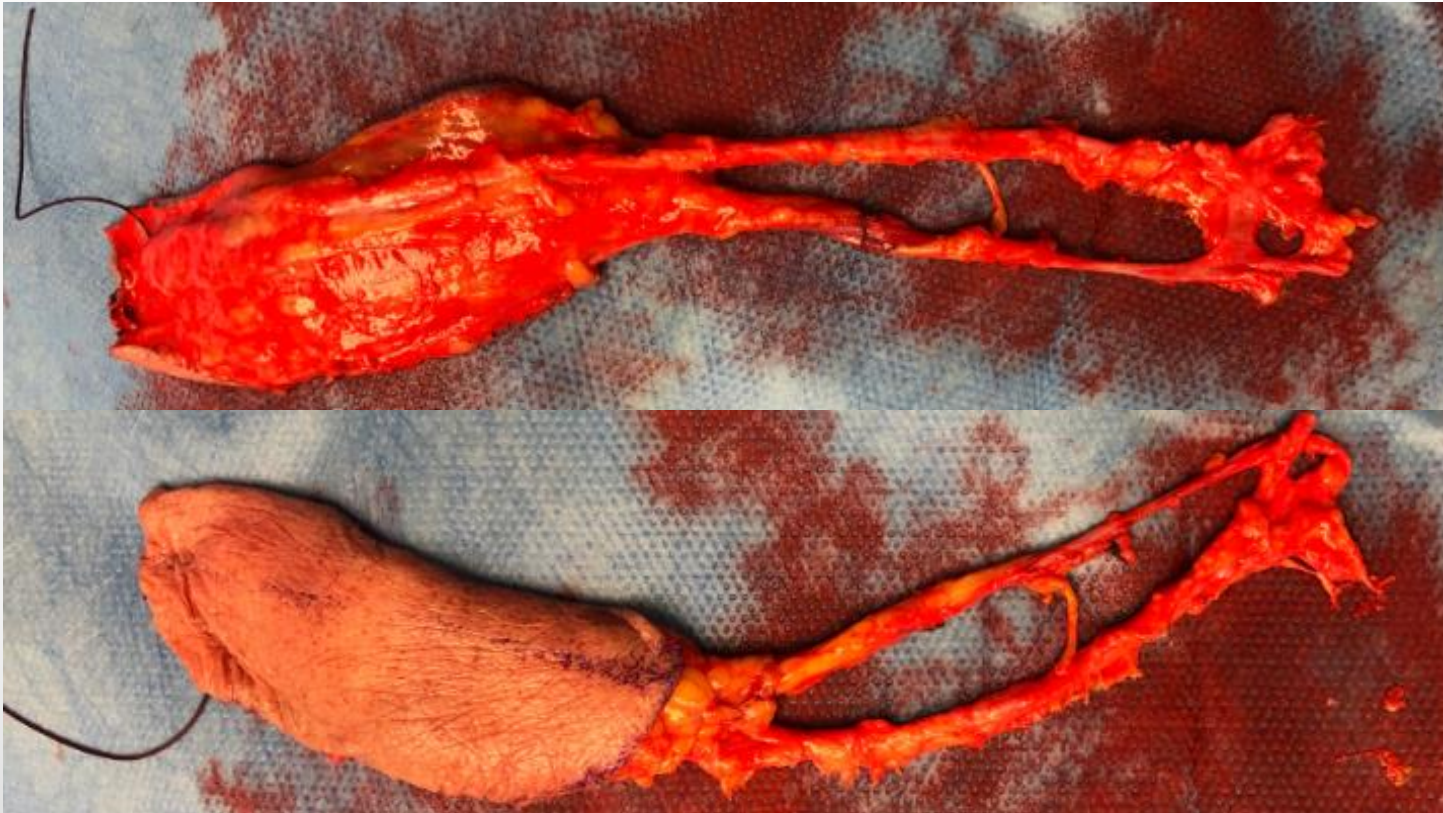


# Applications

- Organ harvesting training
- Damage Control
- Paediatric robotic surgery
- Neurosurgery

# Material and Method

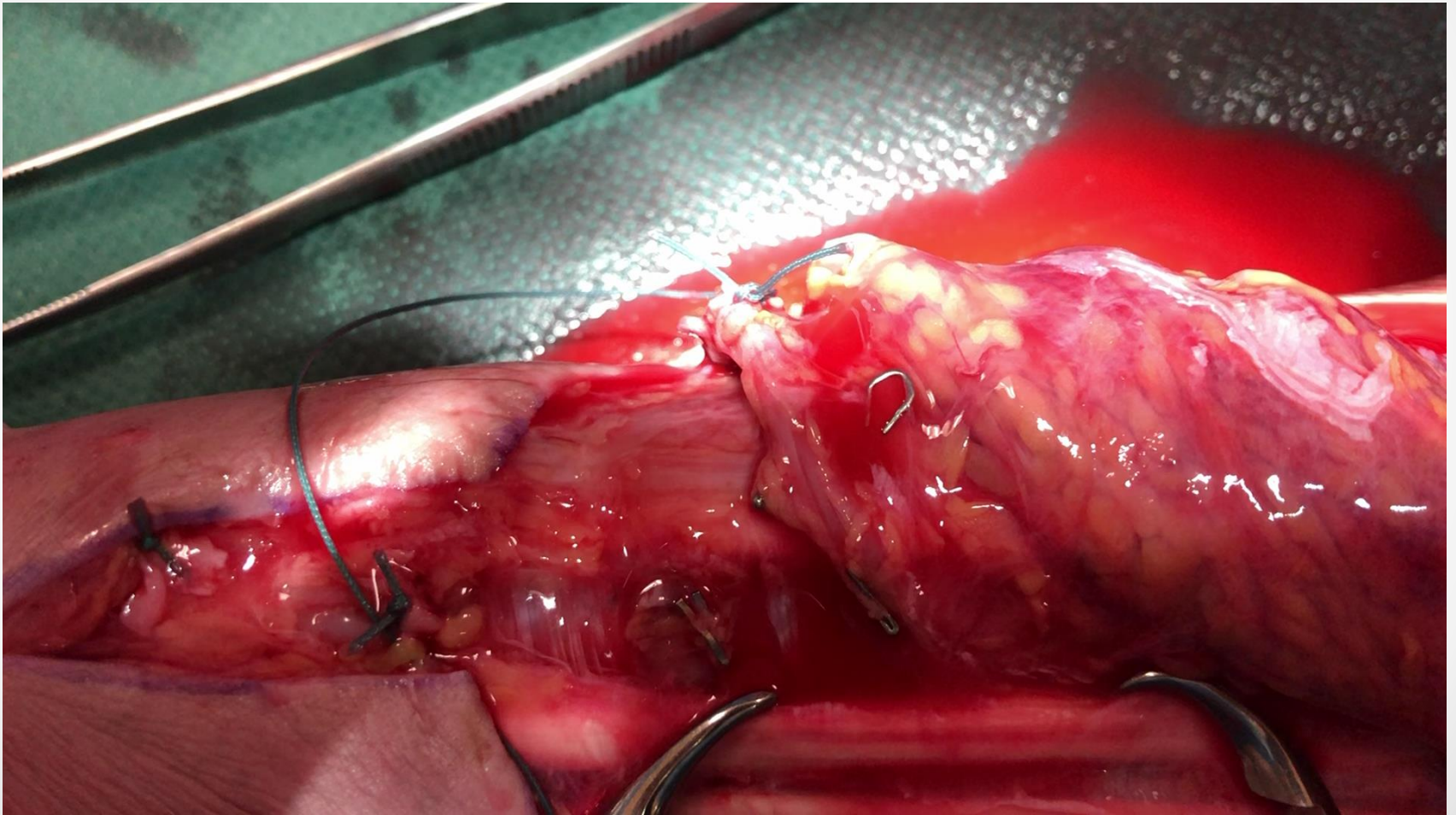
- Prospective Study : 2019, 1st of February until October the 31th
- 8 antebrachials flaps
- Surgical Time and Blood loss were evaluated



# Results

Subject	1	2	3	4	5	6	7	8
Date	08-feb	21-mar	21-mar	27-mar	12-apr	02-oct	29-oct	29-oct
Sex	Male	Male	Female	Male	Female	Male	Female	Female
Side	Right	Left	Left	Left	Right	Left	Right	Left
1.Installation	1	1	1	1	1	1	1	1
2.Allen's test	2	2	2	2	2	2	1	2
3.Drawings	4	5	5	4	4	7	2	2
4.Asepsy	4	6	6	5	5	10	2	3
5.Prox and flap incision	5	7	8	10	9	12	3	4
6.Communicant dissection	17	24	20	35	29	24	15	14
7.Ulnar and radial dissection	34	45	33	41	40	31	23	22
8.Distal pedicle section	40	55	44	45	43	34	26	25
9.Harvesting dist to prox	65	69	62	63	63	59	58	55
10.Individualisation and coagulation of collaterals	72	75	70	71	75	79	64	60
11.Artificial dermis	85	91	85	87	90	83	73	69
12.Compressive dressing	86	98	102	101	92	85	75	73
13.Brace	87	100	105	102	93	87	76	74
Blood loss (ml)	400	250	180	120	150	100	90	80
Mean blood loss (ml)	171,25	Std-Dev	108,026121					
Mean operating time (mn)	90,5	Std-Dev	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