

VIDEOASSISTED MICROSURGERY

Feasibility study



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LITERATURE

SCIENTIFIC ARTICLE

Visual Perception and Acuity of Hand Surgeons Using Loupes

Philippe Perrin, DMD,* Romy Bregger, MS,† Adrian Lussi, DMD, PhD,* Esther Vögelin, MD, PhD†

Conclusions The magnified near vision of hand surgeons showed an important individual variability. Self-assessment was not a valuable instrument for surgeons to estimate their own near vision. Hand surgeons older than 40 years should use higher magnification loupes.

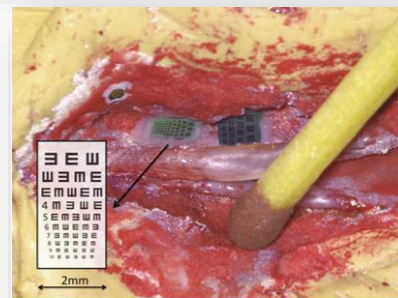


FIGURE 1: Simulated surgical site with vessels and integrated visual tests. Note the size of the match used as an indication of scale.

Microchirurgie avec le robot Da Vinci S. La télémicrochirurgie : l'essor imminent

Telemicrosurgery

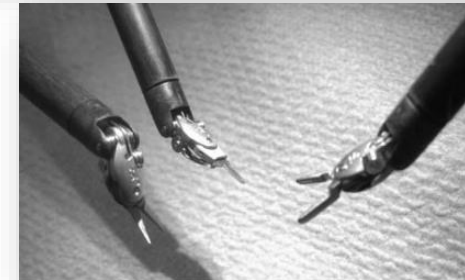


ACADÉMIE NATIONALE
de CHIRURGIE
French Academy of Surgery

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Material: Wistar rats were used with the Da Vinci-S robot: dissection of the artery of the tail of the rat: dissection, double clamp, section of the artery, suture of the artery with separated stitches 10-0 nylon. In the same conditions, sutures of the femoral artery (n=20) sciatic nerve (n=20) of the rats were performed with success. Reimplantation of a limb in the pig was performed with two robots which operated simultaneously with a total success.

Results: The tele-microsurgery allows Reimplantation and transplantation. The learning curve is very short. The technique was used in the human for nerve sutures, and coronary bypass.



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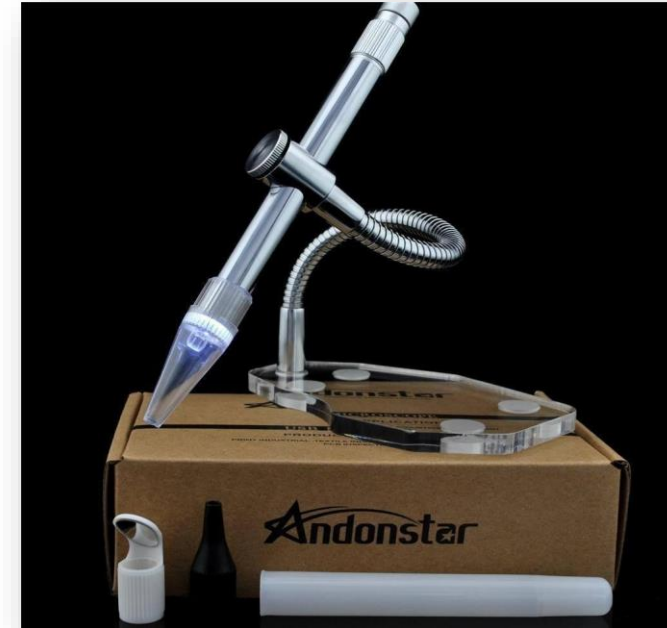
BUT...



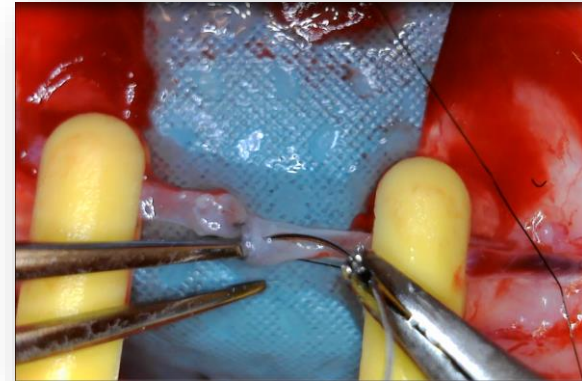
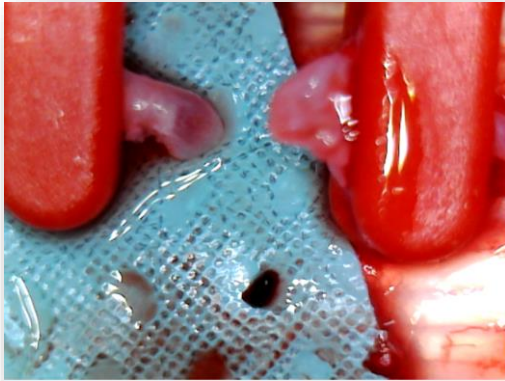
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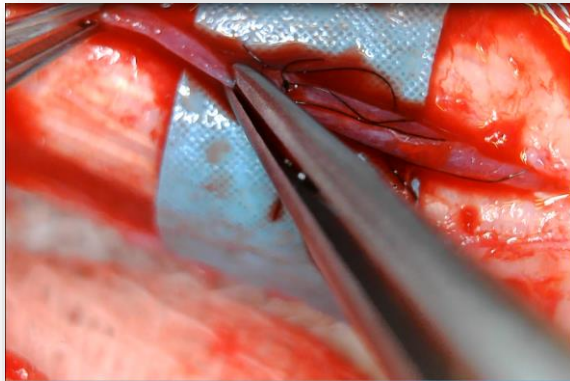
METHOD



METHOD



METHOD



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RESULTS

	Time(min)	Stiches	Leaks Yes/No	Patency Yes/No
1	41	6	No	No
2	38	6	No	Yes
3	30	5	No	Yes
4	30	6	No	Yes
5	40	4	No	Yes
6	41	4	No	No

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Feasability Study

RESULTS

	Stitch 1	Stitch 2	Stitch 3	Stitch4	Stitch 5	Stitch 6
Anastomosis 1	9	8	7	7	5	5
Anastomosis 2	9	7	6	5	5	5
Anastomosis 3	8	8	8	8	4	-
Anastomosis 4	8	8	4	4	4	4
Anastomosis 5	12	12	10	6	-	-
Anastomosis 6	12	12	9	8	-	-

Yes we can!

Advantages

Cost



Size



Learning tool

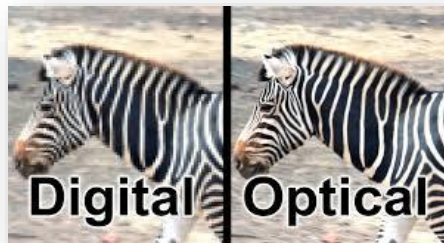


Drawbacks

OR Customed



Digital
Zoom



Focus



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