O65: VIDEO-ASSISTED ARTERIOVENOUS FISTULA IN DYALISIS PATIENTS: OUR PRELIMINARY EXPERIENCE WITH VITOM® HD SYSTEM

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1. Introduction

Arteriovenous fistulae (AVF) constructed using native vessels, vascular grafts and central venous catheters are the best permanent access, owing to a lower incidence of stenosis, thrombosis and infection. [1] The radiocephalic AVF of Cimino-Brescia remains the first choice for vascular access. [2,3] Mininvasivally access with a packaging of anastomoses is difficult in a restricted surgical field and traditional micro-dissection requires using the oculars of a stereo or surgical microscope for visualization. [4] Loupes with 2.5–4.5 magnification are most frequently used, but also the operating microscope may be used. [5] Although these magnifying instruments are essential to the optimal care of patients, they often come at a detriment to the operating surgeon in the form of neck or back pain and fatigue. VITOM® HD System can be a valid alternative to the others magnifying instruments (Fig. 1).

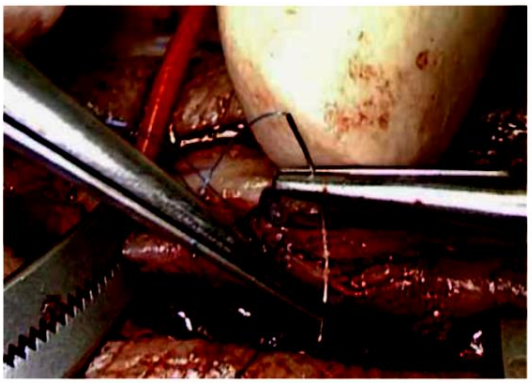
Figure 1: First experience of using VITOM® HD 3D System in an experimental model.

2. Methods

We performed a video-assisted radio-cephalic arteriovenous fistula in latero-lateral using prolene 7-0 without loupes (Fig. 2). The patient was a 72 years old man with history of Diabetes Mellitus type II from 15 years, ischaemic cardiomyopathy from 5 years and renal failure from 2 months. He needed a vascular access to start the substitutive haemodialysis treatment 30 days later. The VITOM® HD 3D System used is a KARL STORZ optical instrument coupled with a 1080p full high definition camera system.

3. Results

The average time for packing anastomoses was 46 ± 15 minutes; No complications were noted after decay, anastomoses showed a perfect holding. The consensus opinion of the entire group was that image quality was excellent and the system is ergonomic. The surgeons agreed that neck strain



and fatigue were reduced.

Figure 2: Arteriovenous video-assisted fistula creation using prolene 7-0 and microscopically instruments.

4. Discussion & Conclusion

The arteriovenous fistula creation is a safe and easy-to-realize technique but provides a long training for surgeons who have no experience in microscopically surgery. This technique is particularly suitable for the formation of young surgeons as the images of the operating field are magnificent, enlarged and high-definite on-screen visible to everyone. Thanks to its own features loupes are not necessary

References

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