



NOVEL TUBE POSITIONING TECHNIQUE FOR AMS 800™ ARTIFICIAL URINARY SPHINCTER PLACEMENT

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INTRODUCTION, AIM OF THE STUDY

We describe a novel method of tube placement, in AMS-800 artificial urinary sphincter positioning, to avoid the risk of damage of the tubing system in case of suprapubic tube, or laparotomy is required.

MATERIALS AND METHODS

We prospectively evaluated 34 consecutive male patients who underwent AMS-800 placing. In our modified tubing-positioning technique the lower limit of the dissection of abdominal fascia was the abdominal face of the pubic symphysis and the pectineal ligament. The lateral limit was the insertion of the aponeurosis at the external abdominal oblique muscle. The abdominal fascia was incised more laterally to position the balloon as far as possible from the midline. Before completing the connections, the tubing was fixed at the most lateral site of the aponeurosis with 3 stitches to stabilize tubing. Figure 1 illustrates the dissection area, ideal tubing allocation, and spots where to fix by sutures. Figure 2 shows tube placement documented by 3D CT scanning and abdominal X-ray.

Figure 1: Dissection area, ideal tubing allocation, and spots where to fix by sutures.

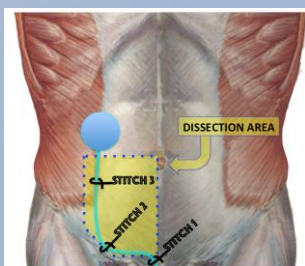
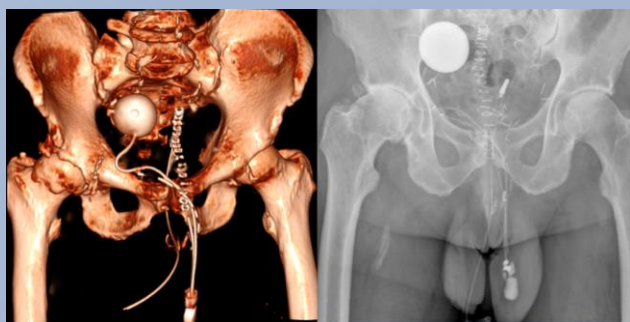


Figure 2: Tube placement documented by 3D CT scanning and abdominal X-ray.



RESULTS

There was no mechanical failure caused by any malfunctioning component. No patient had complications attributed to the new tubing path.

INTERPRETATION OF RESULTS

The AMS-800™ positioning technique has been described in detail.¹ However, the usual tubing path has been the shortest path from the tubing entry point in the retropubic abdominal area to the reservoir. As represented in Figure 3, this path ideally corresponds to the hypotenuse of a hypothetical right triangle, wherein it is the shorter and more medial path between the two acute angles (the tubing entry point and the reservoir). However, owing to its medial position, this route is potentially more dangerous in cases wherein ST placement is necessary. The tubing path described in this paper corresponds to the line of the two cathetus of the hypothetical right triangle. The shorter cathetus is in the retropubic space, covered and protected by the pubic bone. The longer cathetus is far from the possible zone of surgical incision or ST trocar passage because of its lateral position. For these reasons, this modified tubing positioning helps guarantee a lower risk of damaged tubing in case of ST placement or laparotomy. In our practice, we preferred to use non-absorbable material in the three sutures used to stabilize tubing in the curve points. However, it is conceivable that absorbable stitches might have similar results because of bonding of the dissected subcutaneous fat tissues. Sutures must not be tightened but air knots are suggested to ensure suspension without constricting the tubing.

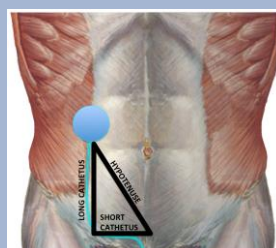


Figure 3: Usually path corresponds to the hypotenuse of a hypothetical right triangle, wherein it is the shorter and more medial path between the two acute angles. The proposed novel tubing path corresponds to the line of the two cathetus of the hypothetical right triangle

REFERENCES

Sarez O.A., McCammon K.A.: The artificial RENCESurinary sphincter in the management of incontinence. Urology, 92: 14, 2016.

CONCLUSIONS

Our novel tube positioning technique is quick, easy to perform, and offers the advantage of allocating tubing in a more safe position in the case a suprapubic tube is required.

