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COMPARISON OF TWO TRANSOBTURATOR SUBURETHRAL SLING TECHNIQUES

Hypothesis / aims of study

To compare two transobturator suburethral sling techniques (TOT): Monarc® (AMS) versus Obtape® (Porges-Mentor), and to evaluate the rate of complications and results in terms of urinary incontinence.

Study design, materials and methods

The patients had isolated urinary incontinence with no prolapse. The operating procedure was the same for both techniques, carried out by two surgeons, one using the Monarc® system, the other Obtape®. Ancillary equipment used consisted of the helicoidal needle in the Monarc® kit and the curved Emmett needle in the Obtape® technique. A prospective, non-randomised study in 80 patients, with 40 in each group.

Characteristics of the sling	Monarc®	Obtape®
Material	Polypropylene mesh	Heat-welded polypropylene
Monofilament	Yes	Yes
Thickness	0.61 mm	0.55 mm
Weight	278 g/m²	90 g/m²
Diameter of fibres	150 µm	26 µm
Pore size	1000 µm	50 µm
Elasticity	6%	5%
Relative porosity	52.1%	
Tensile strength	65.6 N	55.9 N
Elongation at rupture	137%	55.5%

Results

The two groups were identical in terms of age: 54 years for Monarc® (MON), 53 years for Obtape® (OBT), weight, medical and surgical history. Previous treatment had been given for incontinence in 6 cases in the MON group and 3 in the OBT group. The operation was carried out on an outpatient basis for MON with an average hospitalisation time of 13 hours and on a classic hospital admission basis for OBT (26 hours). Incontinence was stage 1 in 17.5% of cases in the MON group, 7.5% in the OBT group, stage 2 in 60% of cases in the MON group, 85% in the OBT group, and stage 3 in 22.5% of cases in the MON group and 7.5% in the OBT group.

Complications were simple: perineal ecchymosis in 2.5% of cases in the MON group and 2.5% of the OBT group, urinary infection in 7.5% of cases in the MON group and 2.5% in the OBT group (*p*=NS).

Mictional urgency	Monarc®	Obtape®	*P*
Pre-operative	16 (40%)	20 (50%)	NS
Post-operative	5 (12.5%)	10 (25%)	< 0.03
Cure	13/16 (81.2%)	14/20 (70%)	NS
De novo	2 (8%)	4 (20%)	NS

62% of patients in the MON group and 45% in the OBT group considered that their urine flow was weak. Flow recordings reported an objective dysuria rate of 10% in the MON group before the operation and 15% after, as compared to 2.5% and 15% for the OBT group. De novo dysuria was reported in 5% of cases in the MON group as compared to 15% in the OBT group (*p*=NS). The average follow-up period was 11 months for both groups (6 to 14 months). Objective clinical results are presented in the following table.

Type of incontinence		Monarc®	Obtape®	p
Pure SUI	Cure	21/22 95.5%	20/25 80%	NS
	Improve	1/22 4.5%	2/25 8%	NS
	Failure		3/25 12%	NS
Mixed incontinence	Cure	8/8 100%	4/6 66.7%	< 0.05
	Failure		2/6 33.3%	< 0.05
Sphincter impairment	Cure	8/10 80%	7/9 77.8%	NS
	Improve	2/10 20%	2/9 22.2%	NS
Total	Cure	37/40 92.5%	32/40 80%	NS
	Improve	3/40 7.5%	2/40 15%	NS
	Failure		6/40 5%	< 0.01

Concluding message

With the Monarc® technique, fewer failures were reported overall than with Obtape®. There was a more marked improvement in cases of mixed incontinence with Monarc. This needs to be confirmed by a larger study. The complications rate is low, with no differences between the two groups. Mention should be made of the post-mictional urgency rate which was twice as high following the operation in the Obtape® group, with no significant difference for de novo urgency.