1125

Wong V[1], Hayward L[1], Smalldridge J[1]
1. *Middlemore Hospital, Auckland, New Zealand*

OUTCOMES OF PELVIC ORGAN PROLAPSE REPAIR USING APOGEE™ OR PERIGEE™ MESH KITS

Hypothesis / aims of study

Achieving successful outcomes in pelvic floor reconstructive surgery has been challenging with recurrence rates of up to 45% reported (1). Mesh implants have been widely utilised in an attempt to reduce the recurrence rates; however, there remains a paucity of long term efficacy data and growing concerns with the safety of its use. In light of these issues, we aim to review the outcomes of women following pelvic reconstructive surgery using Apogee/Perigee™ mesh kits.

Study design, materials and methods

All women who underwent pelvic floor reconstruction using either Apogee or Perigee mesh kits with IntePro™ or InteXen™ from February 2005 to December 2008 were included in the study. Criteria for mesh insertion were a POPQ stage ≥2 and symptomatic prolapse.

All women had a clinical examination including POPQ assessment and all mesh related complications were recorded. Results are reported as short, medium and long term. Short and medium examinations were carried out by the primary surgeons and long term assessments were conducted by an independent clinician. Surgical success was defined as a POPQ score of ≤0 in the implanted compartment and functional success was defined as resolution of prolapse symptoms.

Results

A total of 71 women underwent surgery and 105 mesh kits were implanted; 15 Apogee alone, 22 Perigee and 34 combined Apogee and Perigee. Mean age was 64 (31-86), median parity 3 (1-9) and mean BMI 29 (19-37). 60% of women implanted with Perigee and 84% implanted with Apogee were having surgery for recurrent prolapse. The distribution of preoperative POPQ stages is shown in Table 1.

Mesh	Stage 2	Stage 3	Stage 4
Perigee for anterior compartment prolapse	30.4%	60.7%	8.9%
Apogee for posterior ± apical compartment prolapse	59.2%	28.6%	12.2%

Table 1: Pre-operative prolapse staging at implanted site

Concurrent surgeries included vaginal hysterectomy, sacrospinous fixation, anterior, posterior colporrhaphy and TOT™. There were no intra operative bladder or bowel perforations, one patient had a haemorrhage of 1000mls with concurrent vaginal hysterectomy and one developed a pelvic haematoma following Perigee InteXen insertion which resolved spontaneously.

100% (71/71) of women attended short term follow up (median 6 [6-12] post operative weeks), 59% (42/71) attended medium follow up (median 28 [13-44] post operative weeks) and 85% (60/71) attended long term follow up (median 84 [52-282] post operative weeks). Outcomes following surgery are summarised in Table 2. During the follow up period, 5/71 patients required reoperation for recurrent prolapse at an implanted site; 3 were biological meshes and 2 synthetic whilst 3/71 had prolapse in a different compartment from the implanted site.

Outcomes following mesh insertion		Perigee Anterior Compartment (%)	Apogee Posterior Compartment (%)	Apogee2 Apical Compartment (%)
Surgical Success	**Short term**	**97**	**97**	**100**
	Medium term	**95**	**90.5**	**88**
	Long term	**82**	**93**	**93**
Symptomatic of prolapse	**Short term**	**1.7**	**2**	**0**
	Medium term	**1.7**	**6**	**6**
	Long term	**10**	**2**	**2**
Mesh Extrusion	**Short term**	**1.8**	**6**	**0**
	Medium term	**0**	**6**	**0**
	Long term	**3.6**	**6**	**0**

Table 2: Post-operative outcomes by implanted compartment

The cumulative incidence of mesh extrusion was 11.4% (12/105). This increased with time from index surgery. 92% (11/12) of extrusions were ≤ 1.5 cm. 67% (8/12) of women were asymptomatic whilst 33% (4/12) had vaginal discharge or bleeding and 8.3% (1/12) presented with hispareunia. 58% (7/12) resolved with conservative treatment including in-office trimming and 42 %(5/12) required surgical excision. The timing of mesh extrusion is shown in Table 3.

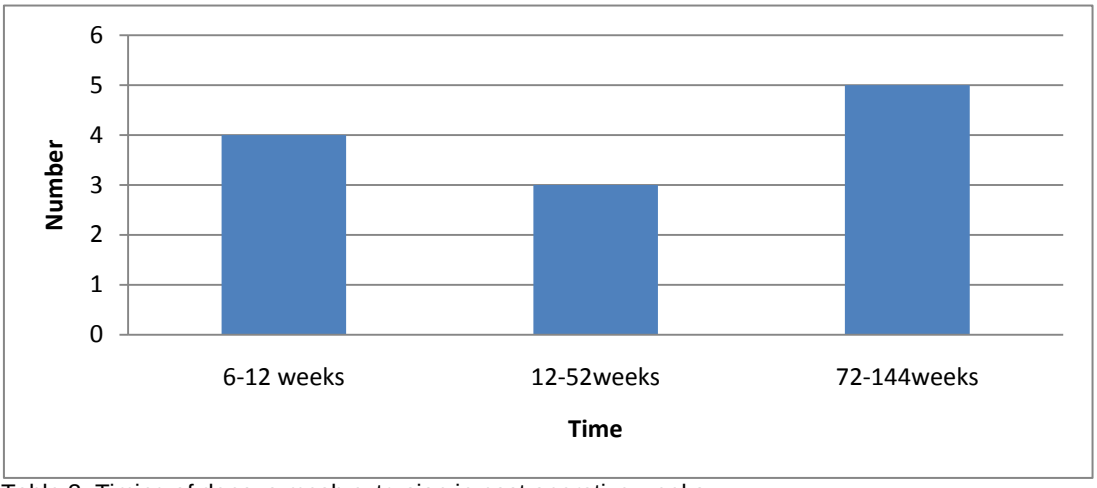

Table 3: Timing of denovo mesh extrusion in post operative weeks

Interpretation of results

Anatomical success declined slightly with time from index surgery but remained high at 82% in the anterior compartment and 93% in the posterior and apical compartments. This represents a higher success rate compared to traditional repair for recurrent prolapse. The rate of mesh extrusion increased with time from index surgery. Of the 11.4% who had mesh extrusion, 42% presented with denovo events at ≥ 16 postoperative months. This may be due to worsening vaginal atrophy over time in our patient population.

Conclusion

The surgical success rate of pelvic organ prolapse repair using Apogee or Perigee mesh kits are high with low risk of operative complications. The incidence of mesh extrusion increased at longer term follow-up and this emphasises the importance for ongoing long term follow-up of women who have had pelvic organ prolapse repair with mesh augmentation.

References

1. Nguyen, J.N. and Burchette, R.J. Outcome after anterior vaginal wall prolapse repair: a randomized controlled trial. Obstet. Gynecol. (2008) 111(4), 891–898.

Specify source of funding or grant	**NONE**
Is this a clinical trial?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
Specify Name of Ethics Committee	**Northern X Regional Ethics Committee**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**