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OUTCOME OF 71 PROCEDURES USING PERIGEE-APOGEE MESHES FOR VAGINAL REPAIR

Hypothesis / aims of study
To assess and analyse short and medium term outcome of vaginal prolapse repair using a mesh kit (Perigee-Apogee vaginal support system, AMS, USA).

Study design, materials and methods
This was a retrospective analysis of case records.

In order to assess our results, hospital records of women who underwent insertion of Perigee and / or Apogee vaginal wall support systems between April 2006 and December 2008 were selected for analysis. All these women were operated by the same Consultant UroGynaecologist. Reviews of records were performed by an independent clinician.

Results
Among this group of 65 women, 28 had only Perigee, 31 had only Apogee and 6 had both Perigee and Apogee meshes inserted. Out of a total of 65 women, 58 (89%) women had either previous abdominal or vaginal hysterectomy, 27 had previous anterior vaginal repair and 26 women had previous posterior vaginal repair. There were 25/65 (38%) women with urinary symptoms and underwent Urodynamics assessment. Of this 20/25 (80%) women showed detrusor overactivity and / or stress urinary incontinence.

Indications for using Perigee mesh included previous anterior vaginal wall repair 20/34 (59%) or moderate / severe degree of cystocele with paravaginal defects 14/34 (41%). Indications for using Apogee mesh included moderate / severe degree of recto-enterocele with or without apical descent 27/37 (73%) or previous posterior vaginal wall repair 10/37 (27%).

In 1 patient who had a previous Burch colposuspension procedure, there was a bladder perforation during insertion of Perigee needle. This was noted at cystoscopy. The mesh arm was reinserted and the bladder perforation was managed conservatively.

There were no other intra-operative or immediate post operative complications in either Perigee or Apogee groups. No patient required to return to theatre, blood transfusion or re-admission.

All women were given follow up appointments at 3 and 9 months. At 3 months 64/65 (98%) women attended. In 1 patient who had Apogee mesh procedure there was approximately 4 mm mesh exposure noted. This did not respond to conservative management with topical Estrogen and Antibiotics. Subsequently it required trimming and co-apting of the vaginal edges. There was no prolapse recurrence or major infection in any patient.

By March 2009, a total of 50 out of 65 women were due for 9 months follow up. 39/50 (78%) attended comprising a total of 42 procedures. The rest were lost to follow up. At 9 months follow up objective improvement was noted in all women with no recurrence at the site of mesh insertion. However 2/18 (11%) who had Perigee mesh inserted developed small rectocele and 2/24 (8.3%) women who had Apogee inserted, developed a small cystocele. There were no cases of mesh erosion/ exposure amongst either Perigee or Apogee group at 9 months follow up.

At 9 months follow up it was noted that 15/25 (60%) women who had urodynamically proven detrusor over activity and / or stress urinary incontinence became asymptomatic. On the other hand, after the operation 9/39 (23%) women developed new urinary symptoms in the form of overactive bladder and / or stress urinary incontinence.

Interpretation of results
This study shows a very low operative and post operative complications and mesh exposure. There were no recurrences of prolapse at the operated sites in this series. However some women developed prolapse at the non operated vaginal wall. This study also revealed that a significant number of women with abnormal urodynamics findings became asymptomatic postoperatively, whilst a significant number of women developed new urinary symptoms.

Concluding message
In our experience insertion of Perigee and Apogee meshes for vaginal wall and apical prolapse is safe and effective in short and medium term. However effect of mesh insertion on the bladder function is unpredictable. This may require further long term follow up and research.

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Is this a clinical trial?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**No**
This study did not require eithics committee approval because	**None needed**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**No**