

INCIDENCE AND MANAGEMENT OF MESH RELATED COMPLICATIONS IN WOMEN WHO RECEIVED MESH RELATED SURGERY FOR PELVIC ORGAN PROLAPSE OVER 11 YEARS IN A TERTIARY UNIT

Hypothesis / aims of study

Mesh exposure and mesh related complications have been commented to cause significant problem requiring surgical excision in more than 10% case in literature mostly in the Western population. Data on this aspect in Asian countries is relatively limited.

Aim of this study was to review the incidence of mesh-related complications; subsequent management and surgical outcome, in women who received mesh related surgery for pelvic organ prolapse in a tertiary unit

Study design, materials and methods

This is an analysis of a prospectively collected database. Demographic data, symptoms and POPQ findings have been collected. Laparoscopic sacrocolpopexy (Lap SC) was offered to woman with vaginal vault prolapse. In woman with stage III/IV uterine prolapse, aged <65 and sexually active, option of vaginal hysterectomy with concomitant laparoscopic sacrocolpopexy (VH+LapSC) was offered. Laparoscopic hysterocolposacropexy (Lap HSC) was offered if women requested for uterine preservation. Vaginal mesh surgery, in terms of anterior vaginal mesh (AVM), total vaginal mesh (TVM) and posterior vaginal mesh (PVM) would be offered to women mainly with cystocele or rectocele, aged ≥65 years old and medically not fit for long operation as in laparoscopic surgery or recurrence of pelvic organ prolapse after previous SCP/HSC done. These could be done with concomitant vaginal hysterectomy (VH) or as uterine preserving operation. Concomitant continence surgery would be performed if women were diagnosed urodynamic stress incontinence. Operative and peri-operative information were collected. After surgery, women were followed-up in 3-4 months then annually. During follow-up symptom of mesh exposure was explored and per vaginal examination was done. Complications related directly to the insertion of mesh would be classified according to the Joint project of the International Continence Society and the International Urogynecological Association (1). Subsequent management and outcome of women with mesh exposure would also be analysed. Ethics approval was obtained from local institute and consent from patient was obtained.

Results

A total of 280 women received mesh related surgery from 2005 to 2016. Mean age of patient was 62.9 (range from 32-87, SD: 10.3). There were 132 women having lap SCP (46 with VH, 86 without VH); 13 with lap HSC performed; 32 women had TVM done (12 with VH and 20 without VH done); 102 women had AVM done (64 with VH and 38 without VH performed) and 1 woman had posterior vaginal mesh performed alone. Concomitant continence operation was performed in 26% of patients.

There was 1 case of injury to bladder during trocar insertion of AVM which was noted intraoperatively, coded as 4A S3 T1. Peri-operatively, one suffered from mesh infection with abscess formation at vulva, requiring re-operation under spinal anaesthesia 18 days after the index operation and the whole mesh was removed with regular wound dressing, coded as 7D S3 T2.

There were 3 women lost-to-follow-up and 2 had the operation done within 3 months; therefore, no follow-up data was available for a total 5 of them. The mean follow-up duration for all others was 36.6 months. (range from 1-131 months)

Overall, there were 19 (6.8%) cases of mesh related complications, among which 17 patients (6.1%) had mesh erosion. Mean duration from index operation to the time first noticing the mesh erosion was 19.7 months, ranging 1.9-63 months (SD = 16.7 months). All patients with mesh erosion presented with on and off vaginal bleeding and all only involved vaginal epithelium. None of them complained of dyspareunia or vaginal pain despite some were sexually active. Around 64.7% (n=11) patients required surgical excisions and the remaining 47% were asymptomatic and opted not for operations. All surgical excisions could be performed under local anaesthesia except two women. One had general anaesthesia with cystoscopy performed during the procedure, confirming no mesh erosion to bladder. The mean time between index operation to excisional operation for mesh erosion was 22.4 months (range 5.3-66.5 months, SD = 19.4 months). Most of them (55.6%, n=5) were successfully treated after the first excision and remained asymptomatic and no more mesh exposure in subsequent follow-up. The remaining four of them required repeated excisions. Overall at their latest follow-up, most of them (66.6%) did not have recurrence of mesh exposure and 3 of them (33%) had mesh re-exposed but remained asymptomatic.

The overall rate of patient's satisfaction for all operations was good with up to 98.2% patients feeling better after operation at follow-up.

Interpretation of results

The major mesh related complications reported here was vaginal mesh exposure but at a relatively lower trend than other reported figures. The occurrence of mesh related complication was higher in vaginal mesh surgery (n=17, 89.5%) than in lap SCP with p-value = 0.01.

There was only 1 case of mesh infection with abscess formation (0.36%) in our centre. Otherwise there were no other serious mesh related complications. Most patients (94.4%) despite with mesh erosion remained well and asymptomatic at their latest follow-up (range 5.3-131 months after the last operation).

Concluding message

Mesh related complications are low and only around half of them required surgical treatment with good outcome. However, long term result of any further recurrence is needed.

References

1. Haylen, B.T., Freeman, R.M., Swift, S.E., Cosson, M. and Davila, G.W. et al (2011) An International Urogynecological Association (IUGA) / International Continence Society (ICS) joint terminology and classification of the complications related directly to the insertion of prostheses (meshes, implants, tapes) & grafts in female pelvic floor surgery. Int Urogynecol J 22:3-15. doi: 10.1007/s00192-010-1324-9

Disclosures

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