

Evaluation of suture material used in anterior colporrhaphy and the risk of recurrence.

Aim of study:

The wide variety of suture material used in colporrhaphy shows a lack of consensus on the optimal choice. The evidence guiding the choice of suture material is scant.

Our hypothesis was that the use of rapid absorbable multifilament suture is associated with a higher risk of recurrence in native tissue anterior colporrhaphy than the use of slowly absorbable monofilament suture.

The aim of this study was to investigate the effects of rapid versus slowly absorbable suture on risk of recurrence after native tissue anterior colporrhaphy.

Methods:

This longitudinal cohort study was performed secondary to a previously published study on pelvic organ prolapse recurrence after Manchester-Fothergill procedure versus vaginal hysterectomy. Data were collected from four Danish databases and corresponding electronic medical records. The cohort from the primary study included 590 women operated between 2010 to 2014.

In this present study, women having had anterior colporrhaphy performed were included. Suture materials were divided in three groups: Rapid absorbable multifilament suture (RAMuS) (Vicryl ®, Polysorb ®), rapid absorbable monofilament suture (RAMoS) (Biosyn®) and slowly absorbable monofilament suture (SAMoS) (PDS®, Monomax®). The main outcome was recurrence of prolapse in the anterior compartment.

Results:

A total of 462 women were included in this study. No significant difference in recurrence was found between the three suture-groups. However, a non-significant tendency towards a higher risk of recurrence in the RAMoS group (HR 2.14 (0.75-6.10) p=0.16) when compared to the RAMuS group was observed in the cox proportional hazard analysis and in the Kaplan Meier plot.

Conclusion:

In this study, the use of rapid absorbable multifilament suture compared to slowly absorbable monofilament suture does not seem to dispose for a higher risk of recurrence after anterior colporrhaphy. Furthermore, the combination of rapid loss of tensile strength and monofilament structure in suture material might be associated with an elevated risk of recurrence in native tissue anterior colporrhaphy.