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IMPROVEMENTS IN PROLAPSE AND SEXUAL SYMPTOMS FOLLOWING ANTERIOR AVAULTA FOR RECURRENT CYSTOCELE.

Hypothesis / aims of study

Anterior vaginal wall prolapse usually presents with a dragging uncomfortable feeling in the vagina, sexual problems, and urinary dysfunction. The primary surgical procedure offered to women with anterior vaginal prolapse is an anterior repair or colporrhaphy but the risk of recurrence is reported to be approximately 35%. Repeat surgery carries a lower success rate, and is associated with sexual problems and pain due to narrowing or shortening of the vagina. Polypropylene meshes have been used to improve the failure rate but are associated with a high risk of erosion and dyspareunia. Anterior avaulta (Bard Urology) is a new polypropylene mesh coated with porcine dermis, which is claimed to reduce the inflammatory response and hence the erosion rate. It also allows the mesh to be securely fixed and covers any associated paravaginal defect that may be present. This study was carried out to evaluate the results of anterior avaulta with respect to prolapse symptoms and sexual function in women with recurrent cystocele.

Study design, materials and methods

31 women (age range 31 – 78: mean 61 years) presenting with recurrent cystocele were recruited into the study. A Prolapse Quality of Life Questionnaire (P-QoL) was completed pre-operatively. This is a validated 9-point questionnaire, which enables each individual to be subjectively quantified and the collective scores analysed using non-parametric (Mann-Whitney) and parametric (T-test). In addition, a Pelvic Organ Prolapse/Urinary Incontinence Sexual Questionaire (PISQ-12) was competed by 23 women who were still sexually active, which is a validated 12-point questionnaire that again can be subjectively analysed. The prolapse was staged using a Pelvic Organ Prolapse Quantitative (POP-Q) assessment. The anterior avaulta procedure was carried out in the lithotomy position under general anaesthetic with antibiotic cover. The vaginal epithelium over the cystocele was incised and the bladder reflected. Two incisions were made in each groin in the skin overlying the medial border of the superior and inferior aspects of the obturator foramen and specially designed needles were then passed through the obturator foramen into the vagina.. The mesh has four arms and these were picked up in turn by the needles and withdrawn thereby pulling the mesh into place. A check cystoscopy was carried out to ensure no bladder perforation had occurred. The mesh was sutured flat and the vaginal epithelium repaired with little or no trimming. A pack and catheter was inserted overnight and the patient discharged the following day after a successful trial of voiding. The women were followed up at 6 months where the prolapse was again staged objectively using POP-Q and subjectively using P-QoL and PISQ-12 questionnaires.

Results

All women successfully attended for follow up and completed the questionnaires. In two cases the vaginal incision had dehisced exposing the underlying mesh rather than a true erosion, which was successfully resutured.

The POP-Q results are shown in the table below:

POP-Q stage	3	2	1	0
Pre-operatively	3	28	0	0
Post-operatively	0	1	5	25

The P-QoL and PISQ-22 results are shown in the table below:

	Mean		Median		T-Test p value	Mann-Whitney p value
	Pre	Post	Pre	Post		
General health	26.60	22.60	25.00	25.00	0.3600	0.5403
Prolapse impact	85.10	21.40	100	0.00	0.0001	0.0001
Role limitations	66.60	20.90	67.00	0.00	0.0001	0.0001
Physical limitations	56.50	19.20	50.00	0.00	0.0001	0.0001
Social limitations	39.7	12.90	33.00	0.00	0.0004	0.0003
Personal relationships	68.80	27.20	83.00	17.00	0.0002	0.0005
Emotions	52.00	23.90	56.00	22.00	0.0002	0.0002
Sleep / Energy	58.10	37.20	67.00	33.00	0.0084	0.0110
Severity measures	54.00	12.90	50.00	8.00	0.0001	0.0001
PISQ-22	30.60	35.60	31.00	36.50	0.1500	0.0678
POP-Q	2.0970	0.2260	2.00	0.00	0.0001	0.0001

Interpretation of results

There is significant reduction in POP-Q staging which is highly statistically significant with the majority reduced to stage 0. The one residual POP-Q stage 2 and three of the residual stage 1 were due to some degree of posterior vaginal wall prolapse: the two women with residual stage 1 had a minor degree (<1cm) of anterior wall prolapse that was asymptomatic. There is no significant reduction in the general health and sleep/energy domains but all other domains of the P-QoL were statistically improved. There is a moderate elevation in PISQ-22 scores but this does not reach statistical significance.

Concluding message

This study had shown that the anterior avaulta procedure is highly effective in resolving symptoms of recurrent anterior vaginal wall prolapse but sexual function does not appear to be greatly improved. The study is therefore being continued in terms of number of women and length of follow up.

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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?	**Yes**
Specify Name of Ethics Committee	**Torbay Local Research Ethics Committee**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**