

Comparison of surgical and quality of life outcomes before and after post-hysterectomy vault prolapse surgery using WHOQoL-BREF score



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INTRODUCTION

- Pelvic organ prolapse (POP) including vault prolapse significantly affects the patient's life; though it is not life threatening but surgery performed for it definitely improves quality of life. (QOL) [1]
- Although the overall incidence of post-hysterectomy vault prolapse is 1.8%, it increases up to 11.6% if the previous hysterectomy was for uterovaginal prolapse [2]
- The World Health Organisation- Quality Of Life BREF score (WHOQoL-BREF) has been used to see the impact of POP including vault prolapse on the quality of life of affected women. [3]
- This questionnaire is one of the best known instruments that has been developed for cross-cultural comparisons of QOL and is available in many languages. This instrument, by focusing on individuals' own views of their well-being, provides a new perspective on life. [4]
- It takes into account four domains like psychological (WHO-PSYCHO), environmental (WHO-ENV), social (WHO-SOCIAL), physical (WHO-PHYS.) and have 26 items and has been well validated in different countries including India.

METHODOLOGY

- Ours was a prospective study, conducted over 20 women presenting with post-hysterectomy vault prolapse, following abdominal or vaginal hysterectomy admitted in the hospital over 4 year period to see the impact of surgery on symptoms like pain and overall quality of life in AIIMS, Delhi.
- The inclusion criteria were women with post-hysterectomy vault prolapse irrespective of indication and type of hysterectomy between 25-85 years of age who were willing to participate in the study with written informed consent
- Women with general prolapse, nulliparous prolapse, and unwillingness to participate were excluded from the study
- Prolapse was classified using Pelvic Organ Prolapse Quantification (POPQ) classification.
- World Health Organisation- Quality of Life BREF Score (WHOQoL-BREF) was performed on all patients before surgery and 6 months after surgery and compared the effect of surgery in improving quality of life.
- All women underwent surgery for vault prolapse as per hospital protocol and severity of prolapse by either vaginal sacrospinous fixation or abdominal sacrocolpopexy
- 24 questions from 4 domains of score and 2 questions related to general health were asked. Each item score of the version ranges from 1 to 5 according to severity and domains scores range from 4 to 20.
- Higher scores denote higher quality of life.
- Assessment of coherence between the clinical evaluation, POPQ, and WHOQoL-BREF score was done using the appropriate statistical method like, student T tests with a p-value of < 0.05 taken as significant.

Steps for checking and cleaning data and computing domain score-courtesy WHO-QoL score article

Steps	SPSS syntax for carrying out data checking, cleaning and computing total scores
1. Check all 26 items from assessment have a range of 1-5	RECODE Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12 Q13 Q14 Q15 Q16 Q17 Q18 Q19 Q20 Q21 Q22 Q23 Q24 Q25 Q26 (1=1) (2=2) (3=3) (4=4) (5=5) (ELSE=SYSMIS). (This recodes all data outwith the range 1-5 to system missing).
2. Reverse 3 negatively phrased items	RECODE Q3 Q4 Q26 (1=5) (2=4) (3=3) (4=2) (5=1). (This transforms negatively framed questions to positively framed questions)
3. Compute domain scores	COMPUTE DOM1=MEAN.6(Q3,Q4,Q10,Q15,Q16,Q17,Q18)*4. COMPUTE DOM2=MEAN.5(Q5,Q6,Q7,Q11,Q19,Q26)*4. COMPUTE DOM3=MEAN.2(Q20,Q21,Q22)*4. COMPUTE DOM4=MEAN.6(Q8,Q9,Q12,Q13,Q14,Q23,Q24,Q25)*4. (These equations calculate the domain scores. All scores are multiplied by 4 so as to be directly comparable with scores derived from the WHOQOL-100. The '6' in 'mean.6' specifies that 6 items must be endorsed for the domain score to be calculated).
4. Delete cases with >20% missing data	COUNT TOTAL=Q1 TO Q26 (1 THRU 5). (This command creates a new column 'total'. 'Total' contains a count of the WHOQOL-100 items with the values 1-5 that have been endorsed by each subject. The 'Q1 TO Q26' means that consecutive columns from 'Q1', the first item, to 'Q26', the last item, are included in the count. It therefore assumes that data is entered in the order given in the assessment). FILTER OFF. USE ALL. SELECT IF (TOTAL>=21). EXECUTE. (This second command selects only those cases where 'total', the total number of items completed, is greater or equal to 80%. It deletes the remaining cases from the data set).
5. Check domain scores	DESCRIPTIVES VARIABLES=DOM1 DOM2 DOM3 DOM4 /STATISTICS=MEAN STDDEV MIN MAX. (Running descriptives should display values of all domain scores within the range 4-20).
6. Save data set	Save data set with a new file name so that the original remains intact.

REFERENCES

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RESULT AND INTERPRETATION

Table 1. Characteristics of patients with vault prolapse (N=20)

S.NO	Characteristics	Number	Percentage
1.	Age(years)		
a.	Range	38-66	
a.	Mean +/- SD	54.8+/-9.21	
2.	Parity		
a.	Range	1-6	
a.	Mean +/- SD	3.5+/-1.2	
3.	Body Mass Index(kg/m ²)		
a.	Range	19.2-29.7	
a.	Mean +/- SD	22.71+/-2.47	
4.	Socioeconomic status		
a.	Lower	12	60%
a.	Moderate	7	35%
a.	Upper	1	5%

- The complaints were bulge or mass feeling at the perineum (100%), pressure and pain in the lower abdomen and perineum (55%), and constipation (60%).

TABLE 2: SYMPTOMATOLOGY OF PATIENTS OF VAULT PROLAPSE

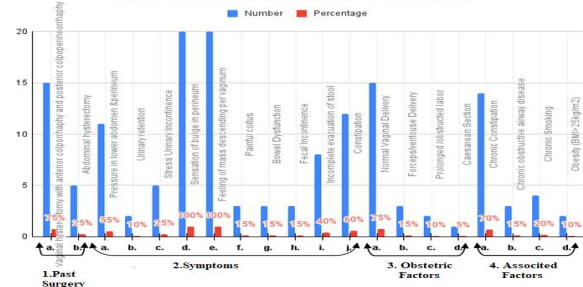


Table 3: Examination findings in vault prolapse cases in POPQ-

S.NO	TYPE OF PROLAPSE	NO. OF CASES	PERCENTAGE
1.	Cystocele	20	100%
2.	Rectocele	20	100%
3.	Vault prolapse	20	100%
4.	Enterocele	9	45%
SURGERY PERFORMED			
1.	Vaginal sacrospinous fixation with anterior colporrhaphy and post colpoperineorrhaphy	14	70%
2.	Abdominal sacrocolpopexy with PFR	6	30%

- The mean WHOQoL-BREF score was improved significantly 6 months after surgery in all domains and was 14.50+/-2.506, 14.60+/-1.30, 14.30+/-1.25, 13.90+/-1.969 respectively (p range 0.0091 to 0.001).
- The type of vault prolapse surgery (vaginal sacrospinous fixation (70%) versus abdominal sacrocolpopexy (30%) didn't change the QoL-BREF (p 0.18), in our study
- Limitation of the study-long term implications of surgery were not detected through score and sample size was small.

Table 4: preoperative and postoperative World Health Organization quality of life-BREF SCORE

S	DOMAIN	PREOPERATIVE			POSTOPERATIVE			WHOQoL-BREF Score in cases of vault prolapse (n=20)		
		RANGE	MEAN	SD	RANGE	MEAN	SD	STANDARD ERROR OF MEAN	P VALUE	SIGNIFICANCE
1	WHO-PSYCHO	8-16	12.20	2.394	9-16	14.50	2.506	0.775	0.005	SIGNIFICANT
2	WHO-ENV	11-15	13.10	1.370	12-16	14.60	1.30	0.422	0.001	SIGNIFICANT
3	WHO-SOCIAL	8-14	12.50	2.121	8-16	14.30	1.252	0.551	0.002	SIGNIFICANT
4	WHO-PHYS	8-15	11.90	2.025	9-15	13.90	1.969	0.632	0.003	SIGNIFICANT

CONCLUSION

- POPQ and WHOQoL-BREF are complimentary to each other as they assess different aspects of prolapse. POPQ normally assesses anatomical location and quantification of prolapse while WHOQoL-BREF mainly assesses the impact of prolapse on the quality of life and the improvement in quality of life with surgery, so it is the benchmark for patient condition after operation along with self assessment of surgery and surgeon also.
- World Health Organisation- Quality Of Life BREF Score (WHOQoL-BREF) is a useful index to assess the impact of vault prolapse on quality of life and to see the impact of surgery on it.