International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Rohini E et al. Int J Reprod Contracept Obstet Gynecol. 2022 Apr;11(4):1209-1213
www.ijrcog.org
pISSN 2320-1770 | eISSN 2320-1789

DOI: https://dx.doi.org/10.18203/2320-1770.ijrcog20220906

Original Research Article

Retrospective audit of genital prolapse management

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Received: 18 February 2022
Accepted: 08 March 2022

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ABSTRACT

Background: Pelvic organ prolapse is a descent of the pelvic organs into the vagina, frequently associated with local pelvic symptoms. Pelvic floor support is essential to maintain the normal anatomy. Recent studies of genital prolapse suggests that it is more important to improve the patient satisfaction and reduce complication than to achieve anatomical success. The purpose of the audit of genital prolapse management in this retrospective study is to know and understand the decision making, selection of patients for a particular surgery and to know and avoid the complications of genital prolapse management.
Methods: This retrospective descriptive study was conducted at SVMCH and RC during the period of January 2020 to December 2021. The detailed analysis of the cases, symptomatology, surgical methods, complications and follow up were studied.
Results: We managed 110 cases of genital prolapse. 35 patients had massive/ huge genital prolapse (POP Q Stage 4). 75.4%were found in the age group beyond 55 years, 66.3% were multiparous. 31% of the patients came with massive prolapse (POP Q-stage IV), 5% showed cervical elongation ,7% showed vault prolapse, Majority of our patients (63%) were managed by vaginal hysterectomy with pelvic floor repair. Followed by pessary, Fothergill's surgery, Purandare's surgery, Le forte's, sacrospinal fixation, hysterosacropexy, pessary with thiersch stitch.
Conclusions: The choice of management of genital prolapse has to be tailored according to the patients needs and pathology. The younger trainees have to be trained to get the skills of various surgeries of genital prolapse.

Keywords: Genital prolapse, Pessary, Vaginal hysterectomy, Sacrocolpopexy, Hysterosacropexy, Massive prolapse

INTRODUCTION

Pelvic organ prolapse is a descent of the pelvic organs into the vagina, frequently associated the bowel, urinary, sexual or local pelvic symptoms. Even though half of the multiparous women lose pelvic floor support leading to some degree of prolapse, only 20% of the women approach medical advice. The frequency of women having genital prolapse steadily increases with age.[1] it is essential to understand the pathophysiology and to assess the extent of prolapse to take the decision for appropriate management of prolapse.[2] The lifetime risk of requirement of surgical management for prolapse has been estimated to be around 11% and close to 30% will undergo repeat surgery for prolapse.[3]

Pelvic floor support is essential to maintain the normal anatomy, which is dependent on the functional and structural integrity of the striated muscle of the pelvic floor and the surrounding connective tissue.[4]

The predisposing factors for the genital prolapse are multifactorial such as advanced age, parity and laxity of the connective tissue. The mechanisms that have been explained include denervation, trauma, defect in the synthesis, degradation of the collagen and defects in the endopelvic fascia.[5-8]

Surgical review of the recent studies of genital prolapse suggests that it is more important to improve the patient satisfaction and reduce complication than to achieve anatomical success, considering the concerns regarding the native tissue repair and US FDA warnings.[9]

The purpose of the audit of genital prolapse management in this retrospective study is to know and understand the decision making, selection of patients for a particular surgery and to know and avoid the complications of genital prolapse management.

METHODS

This retrospective descriptive study was conducted at Shree Venkateshwara medical college hospital and research centre during the period of January 2020 to December 2021. Patient details were collected from the case files available in the MRD. The detailed analysis of the cases, symptomatology, surgical methods, complications and follow up were studied. Totally 110 cases of genital prolapse of various degrees and complications were collected irrespective of the age and parity. No cases were excluded from the study.

Aims and objectives

To know the various methods practiced in the management of genital prolapse in our institute. To train the post graduate students in selection of a surgical procedure which would be the most appropriate for a particular case.

RESULTS

This retrospective descriptive study was conducted at SVMCH and RC Pondicherry for a period of 2 years. During these 2 years we managed 110 cases of genital prolapse of various degrees.

Table 1: Demographic characteristics.

Age	Parity				Percentage
	>3	2	1	0	
<45	3	3	0	1	6
46-55	13	6	1	0	18
>55	72	11	0	0	75

Table 2: Type of prolapse.

Type of prolapse	Number	Percentage
Uterovaginal prolapse	95	86
Cervical elongation	6	5
Vault prolapse	8	7
Uterovaginal+rectal prolapse	1	1
Massive prolapse (POP Q-stage IV)	35	32

Significant number of prolapses around 75.4%were found in the age group beyond 55 years, the least 6% cases were found in the age group below 45 years majority of these patients (66.3%) were multiparous with parity above 3. Only 1.1% of prolapse was found in nulliparous women (Table 1)

Table 3: Presentation.

Presentation	Number	Percentage
Pressure symptoms	76	69
Irreducibility	12	11
Decubitus ulcer	22	20

Table 4: Co-morbidities.

Co-morbidities	Number	Percentage
Nil	51	46
Single	47	43
Double	9	8
Multiple	3	3

Table 5: Management.

Management	Number	Percentage
Pessary	13	12
Pessary+thiersch stitch	1	1
Hysterosacropexy	1	1
Fothergill's	8	7
Purandare's	4	4
Le forte's	5	5
Vaginal hysterectomy	70	64
Sacrocolpopexy	8	7
Sacrospinous fixation	5	5

Table 6: Complications.

Complications	Number	Percentage
Pelvic abscess	3	3
Vault prolapse	2	2
Febrile morbidity	8	7
Venous thromboembolism	0	0
Blood transfusion	15	13
Surgical injuries	0	0

In our study 86% of women presented with uterovaginal prolapse with or without cystorectocoele. 31% of the patients came with massive prolapse (POP Q-stage IV), 5% showed cervical elongation, 7% showed vault prolapse, only 1 patient had uterovaginal prolapse with rectocoele. (Table 2)

As far as symptoms related to the prolapse, many of our patients (69%) had pressure symptoms and 20% presented with decubitus ulcer,12% patients came with irreducible prolapse. (Table 3)

Table 7: Management of massive vaginal prolapse (POP-Q stage IV).

Management	Number	Complications			
		Hemorrhage	Abscess	VTE	Febrile morbidity
Pessary	4	0	0	0	0
Pessary+ thiersch stitch	1	0	0	0	0
Purandare's	3	0	0	0	0
Sacrocolpopexy	5	0	0	0	0
Hysterosacropexy	1	0	0	0	0
Fothergill's	1	0	0	0	0
Le forte's	5	0	0	0	0
Vaginal hysterectomy	15	10	1	0	5

46% of the patients had no comorbidities, however 54% showed evidence of diabetes, hypertension, bronchial asthma etc. (Table 4)

Majority of our patients (63%) were managed by vaginal hysterectomy with pelvic floor repair followed by 11% of the patients who underwent conservative management like pessary. 7% of the patients deserved Fothergill's surgery. 4 patients underwent Purandare's anterior sling surgery. We performed Le forte's surgery in 5 patients who were unfit for major surgeries due to major comorbidities. sacrospinal fixation was done in 5 patients along with Vaginal Hysterectomy and PFR. One patient underwent hysterosacropexy. One patient underwent posterior repair with pessary and thiersch stitch for genital and rectal prolapse respectively. (Table 5)

In our audit we found around 13.6%of the patients required blood transfusion post operatively and 7% of the patients showed febrile illness following surgery. However, among those 7% of the patients, 3 patients showed pelvic abscess. No evidence of VTE in our study. However, 2 patients showed vault prolapse within 2 years. (Table 6)

We audited separately 35 patients who had massive/ huge genital prolapse (POP Q Stage 4) and they were managed with various surgeries, ranging from Vaginal Hysterectomy with pelvic floor repair to hysterosacropexy. The surgery for these patients contributed maximum number of patients requiring blood transfusion in our study. 14 % of these patients showed febrile morbidity post operative, one of them showed evidence of pelvic abscess. (Table 7)

DISCUSSION

Pelvic organ prolapse is the downward displacement of structures that are normally located at the level of or adjacent to the level of vaginal vault. A significant morbidity or deterioration of life style may be associated with prolapse.[10] However mortality is negligible. The treatment of pelvic organ prolapses and associated symptoms constitute a major subject in gynaecological practice. A review of the history of treatment of prolapse showed evidence of various methods, however the first real advance in the treatment was the development of a pessary.[11] These pessaries continued to bring relief to a large number of women and seldom did any serious harm.in the modern era of great surgical advances in the prolapse management.[12] Pessaries play an important role and hence it is required to create an awareness among the medical professionals regarding the use, indications and complications. In our present practice we frequently use medium sized ring pessary made of silicone.

After the first vaginal hysterectomy by Samuel Choppin in 1861 for the prolapse, there was no further progress in the surgical techniques till the beginning of 20th century.[13] Western reports of hysterectomy, colporrhaphy (Manchester Fothergills) Cervical ligament ligation, Colpocleisis, Ventral fixation of uterus to the anterior abdominal wall and Trachelorrhaphy for procidentia were published in the beginning of 20th century.[14] This timing was certainly consistent with the development of anesthesia and various surgical techniques in all the fields of medicine.

The management of advanced and symptomatic prolapse is primarily surgical.[15] Once the decision is made to operate, quality of life goals needs to be established . if the patient can tolerate a lengthy operation and if she desires sexual function a reconstructive operation should be considered. If the patient doesn't desire sexual function an obliterative procedure such as colpocleisis might be the best procedure. Colpocleisis has very low failure rate but the end doesn't justify the means in all the patients.[16] In our present study we performed colpocleisis (Le forte's) in whom lengthy procedure was risky. Even in the modern era indications for colpocleisis do exist and hence it is mandatory procedure to be taught to the younger upcoming post graduate students. All the prolapse patients should be carefully evaluated for co-existing pelvic

pathology. As this pathology may change the operative approach. Young patients with the uterine prolapse may require conservative management to preserve their fertility.[17] The present study conducted in our institute constituted 8 Fothergills and 4 Purandare surgeries and 1 hysterosacropexy. Eventhough various surgeries have been explained and performed for vault prolapse, a Cochrane review concluded that abdominal sacrocolpopexy was associated a success rate of 94-96% and mesh erosion rate of 4%.[18] It is the standard and only procedure used by us for vault prolapse. However few cases of unilateral sacrospinous fixation were done for vault fixation during Vaginal hysterectomy just to demonstrate for the post graduate students and the junior faculty.

Vaginal hysterectomy with pelvic floor repair is the standard procedure to correct uterine prolapse.[19] The procedure of choice for the reconstructive surgery of vagina should be customised for individual patients. The procedure chosen should have a low risk of morbidity, mortality and must have a long-term durability.

The goal of vaginal surgeries is to maximize patient satisfaction as well as return the pelvic organs to their original position and is related to the experience of the surgeon. In this study we have performed 70 cases of vaginal hysterectomy with pelvic floor repair and is the frequently performed surgery for uterine prolapse.

Many studies have shown 12-15% of total morbidity following pelvic organ prolapse surgeries. Most commonly encountered morbidity was infection followed by bleeding and surgical injuries.[20] The least surgical morbidity encountered were cardiopulmonary and wound complications. Present retrospective analysis of 110 cases showed a similar trend.

CONCLUSION

The choice of management of genital prolapse has to be tailored according to the patients' needs and pathology. The younger trainees have to be trained to get the skills of various surgeries of genital prolapse.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Rohini E, Indu NR, Banu SA, Hiremath PB, Hiremath R. Retrospective audit of genital prolapse management. Int J Reprod Contracept Obstet Gynecol 2022;11:1209-13.