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PROLIFT LIKE (PL) SURGERY: A MANAGEMENT OPTION FOR SEVERE PELVIC ORGAN PROLAPSE (POP) IN A PUBLIC HOSPITAL IN A DEVELOPING COUNTRY.

Aims of study

The recurrence rate of POP after surgery is higher than what surgeons expected. In an attempt to reduce this rate different mesh surgeries have been used, particularly the anchor mesh surgeries as Prolift. The original kits are too expensive for developing countries and even more in public hospitals. There are several groups that, trying to apply this techniques at lower cost, developed modification of the original surgeries. We developed a Prolift Like technique with the Prolift device parts but the mesh is made with Gynemesh PS following the figure of the original Prolift (anterior, posterior or total).

The aim of this abstract is to present our experience with this anchored arms-mesh surgery in a public hospital in a developing country. We report epidemiological features, type of surgery, surgical results, intraoperative - perioperative complications, postoperative recurrence, mesh erosion, subjective surgery satisfaction and quality of life (QoL).

Study design, materials and methods

This is a retrospective cohort of patients how underwent PL surgery between January 2008 to December 2009.

Data of patients were obtained from the hospital database by a search for the surgery field. Case notes were reviewed to obtain information like demographics, symptoms, gynaecological exam (including POPQ quantification), follow-up at 3 weeks, 6 weeks, 3 month, 6 month, 1 year and then yearly. Recurrence was defined as stage II or higher in POPQ. Three months after surgery, and then in every visit, patients were asked for surgery satisfaction and subjective change in QoL. Methods, definitions and units conform to the standards jointly recommended by the International Continence Society and the International Urogynecological Association, except where specifically noted. All the surgeries were performed by urogynecology unit surgeons. Informed written consent was obtained from the clinical patients to perform the surgery.

Results

Between January 2008 to December 2009 746 new patients were evaluated in the ambulatory urogynecology unit and in the same period 309 surgery were performed by the unit. Eighty-eight of them were PL surgery. Demographic details including comorbidities and previous ginecological surgeries are shown in Table 1.

Table 1 Demographic data

Demographic Data	
Mean age±SD, range/mode (years)	61±7,6, 42-79/71
Median total parity±SD, range/mode	3,2±1,6, 1-9/2
Median Vaginal spontaneous birth±SD, range/mode	2,7±1,7, 0-9/2
Median heaviest newborn weight±SD, range/mode (grams)	3800±526, 2800-5000/3500
Post Menopause status	80/88
Median menopause age±SD, mode (years)	46±5,9, 45
Mean BMI±SD, range (kg/m^2)	28,5±4,2, 19-39
Previous gynaecological surgeries	35/88
Total any POP surgeries	14
Prolapse VH/HT with or without anterior or posterior colporrhaphy	5[1]
Other POP surgeries	5
Non POP Abdominal hysterectomy	17[2]
Other procedure	9

VH: Vaginal Hysterectomy HT: Abdominal Hysterectomy [1] One with TOT [2] One with Burch procedure, four thereafter POP surgeries.

The symptoms before surgery are shown in Table 2

Symptom	**Percentage (n)**
Bulge/vaginal pressure	96,5 (85)
Voiding difficulty	52,2 (46)
Urgency/urge incontinence	47,7 (42)
Stress Urinary Incontinence (SUI)	34 (30)
Colorrectal symptoms	11,3 (10)

Seven patients were staged II a, sixty-two III a, two IV a, five III c, six IV c, one II p and five III p in POPQ classification.

The average general Pre and post operative POPQ are shown in table 3:

		Aa±SD	Ba±SD	C±SD	TVL±SD	Ap±SD	Bp±SD	D±SD
APL	Preop	1,3±1,1	2,8±1	3±1,8	8,2±1,3	-1,6±1	-1,6±1	-5,9±1,3
	Postop	-2±0,9	-2±0,9	-6±1,6	8,1±1,1	-2±1,3	-2±1,3	-6,9±1,1
PPL	Preop	-2,2±0,4	-2,2±0,4	-5±2	8,2±1	2,3±1	3±1	-7,3±0,6
	Postop	-2,4±0,5	-2,4±0,5	-6±0	8,2±1	-2±0,7	-1,6±0,9	-8±0
TPL	Preop	2,6±0,8	5±1	4,5±2,2	8,6±0,6	-0,1±1,9	0,9±2,5	-1,5±1,3
	Postop	-2,6±0,9	-2,6±0,8	-4±2,9	8±1	-2,6±0,7	-2,6±0,7	-7±0,9

Surgical details:

Perioperative data are shown in table 4.

Perioperative Data	General	APL (67)	PPL (6)	TPL (15)
Mean operating time±SD (min)	62,8±21,3	56,9±18,5	62±18,5	88,1±14,1
Mean Estimated blood loss±SD (ml)	70,7±46	79,2±48,9	66,7±48,4	69,3 ± 30,8
Intraoperative/severe complications	6/2	6[3]/2[4]	0/0	0/0
Median hospital stay±SD (days)	2±1	2±1	3±1	2±1
Concomitant Surgeries	25[5]	21	2	2

[3] One Hypertensive emergency due to IV epinephrine infiltration w/out consequences, two hematuria w/out bladder perforation, one vaginal mucosa injury, one bladder perforation managed with 1 week Foley catheter [4] One dissecting hematoma of the Retzius space secondary to obturator vein injury (the mesh was removed) requiring surgical drainage with accidental cystostomy, One bladder injury repaired with vicryl, being necessary to install double-J catheter due to proximity to the ureteral meatus. [5] 18 Posterior colporrhaphy, 8 TOT

Follow-up:

Follow-up details are shown in table 5

Follow-up Details	General (%)	APL (%)	PPL (%)	TPL (%)
Mean follow-up±SD (month)	8±4,6	7,6±4,3	10,3±7	8,7±4,7
Recurrence	16 (18)	13[6] (19,4)	0	4[7] (21)
Post operative events	27 (30)	18[8] (26,8)	1[9] (17)	4[10] (28)
Mesh Erosion	6 (6,8)	3 (4,4)	0	3 (21,4)
Vaginal synechiae	8 (9)	7 (10,5)	1 (17)	0
Surgery Satisfaction	67[11] (100)	52[12] (100)	4[13] (100)	11[14] (100)
Improve in QoL	60[11] (89,5)	46[12] (88,4)	3[13] (75)	11[14] (100)

[6] Four asymptomatic anterior POP, one asymptomatic hypertrophic cervix elongation not diagnosed in preoperative, eight posterior (unaffected compartment) POP two of them symptomatic one undergo to PPL [7] Three asymptomatic hypertrophic cervix elongation not diagnosed in preoperative, one uterine POP undergo to vaginal hysterectomy. [8] One pielonefritis, six de novo SUI, six persistent SUI or miccional urgency, four urinary infection, one perineal persistent pain [9] Vaginal hematoma drained spontaneously [10] Three de novo SUI, one painful retraction of posterior mesh [11] Only 67 patients responded to the questionnaire [12] Two worse and four equal QoL [13] One equal QoL [14] Four not responded the questionnaire

Interpretation of results

PL technique obtained results comparable to the original Prolift technique published in the literature. The recurrence rate is low, independent of the POP type. The rates of intraoperative and perioperative complications are low, as the mesh erosion. The technique is associated with high surgery satisfaction (100%) and improves quality of life (89.5%).

Concluding message

The “hand-made” PL allows the management of POP in public hospitals in developing countries, being important to maintain the standard of the original surgery. For this aim seems relevant to use Gynemesh PS mesh, which determine low complication rates. It is planteable to apply this model in other developing countries as advanced techniques of managing POP.

References

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Was this study approved by an ethics committee?	**No**
This study did not require ethics committee approval because	**It is a retrospective cohort**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**