

PREVALENCE OF DIFFERENT TYPES OF PROLAPSE AND LEVATOR ANI MUSCLE INJURY IN CHINESE WOMEN HAVING PELVIC ORGAN PROLAPSE – A PILOT STUDY.

Hypothesis / aims of study

Levator ani muscle injury has been identified as a risk factor for pelvic organ prolapse. It was reported in 13-36% of Caucasian women. Besides, it was reported that Caucasian have more cystocele and rectocele as compared to uterine prolapse. However, there was limited information in Chinese. The aim of this pilot study is to evaluate the prevalence of different types of prolapse and the prevalence of levator ani muscle injury in Chinese women having pelvic organ prolapse.

Study design, materials and methods

From December 2011 to March 2012, women presented to an urogynaecology unit for pelvic organ prolapse were recruited and written consent was obtained. Demographic data was obtained, followed by physical examination to determine the type(s) of prolapse and the staging according to pelvic organ prolapse quantification by a gynaecologist. 3D/4D translabial ultrasound scan was obtained at pelvic floor muscle contraction. Offline analysis was performed to detect for levator ani muscle injury in a standard way by one investigator who was blinded to the data obtained above. Either unilateral or bilateral injury was regarded as positive findings. Ethics approval was obtained from the institute.

Results

At this report, 100 women were recruited. Their mean age was 63.0 ± 10.8 years old and mean number of vaginal birth was 3.4 ± 1.7 . Their body mass index was 25.3 ± 4.8 kg/m². Six (6%) had history of hysterectomy. Overall, 80 (80%) had stage I/II prolapse, and 20 (20%) had stage III/IV prolapse. Majority (99%) had anterior compartment prolapse, followed by middle compartment (97%) and posterior compartment (76%). (Table 1)

In all, 13 (13%) had levator ani muscle injury, with 6 bilateral and 7 unilateral (4 on right side and 3 on left side). There was a tendency of more women with stage III/IV pelvic organ prolapse having levator ani muscle injury as compared to women with stage I/II only. However, these did not reach statistical significance in this study. (Table 2)

Interpretation of results

The prevalence of prolapse in different compartments of Chinese women could be different from those reported in literature. The prevalence of levator ani muscle injury was 13% (95% CI 6%-20%). However, it was not associated with advanced stage pelvic organ prolapse which could be due to a small sample size.

Concluding message

The prevalence of prolapse in different compartments of Chinese women could be different from those reported in literature. The prevalence of levator ani muscle injury was 13% (95% CI 6%-20%). Further large scale research is needed to evaluate these.

Table 1. Prevalence of prolapse in different compartments in 100 women

N = 100	No prolapse	Stage I/II	Stage III/IV
Anterior	1	86	13
Middle	3	80	17
Posterior	24	71	5
Overall	--	80	20

Table 2. Prevalence of levator ani muscle injury in women with stage III/IV pelvic organ prolapse

Stage III/IV POP	LAM injury present	No LAM injury	P-Value
Overall	4 (30.8%)	16 (18.3%)	0.29
Anterior compartment (n=99)	3 (23.1%)	10 (11.6%)	0.37
Middle compartment (n=97)	4 (30.8%)	13 (15.3%)	0.22
Posterior compartment (n=76)	1 (7.7%)	4 (6.0%)	0.48

Disclosures

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