

Women with symptomatic pelvic organ prolapse presented at younger age with levator muscle avulsion

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Hypothesis / aims of study

This study aims to identify any different clinical parameter in women presented with symptomatic pelvic organ prolapse with or without levator muscle avulsion to an urogynaecology unit.

Study design, materials and methods

This is an observation study of women presented to an urogynaecology unit in 2012-2014 with symptomatic pelvic organ prolapse. Ethical approval from local institute was obtained and also informed consent from patients. Basic demographics and pelvic floor symptoms were obtained and of their prolapse was assessed using POPQ staging at the first consultation. 3D/4D transperineal ultrasound scan was performed and the levator ani muscle avulsion was assessed using tomographic ultrasound imaging on volumes obtained at maximal pelvic floor muscle contraction (PFMC) at 2.5mm slices intervals, from 5mm below to 12.5mm above the plane of minimal hiatal dimensions. Demographics and POPQ staging were compared between with or without levator ani muscle avulsion.

Results

Total of 399 datasets were reviewed with the mean age of 62.5 (10.3) years old, mean BMI was 25.2 (3.7)

and the median parity is 3. 156/399 (39.3%) of the women had levator ani muscle avulsion with 92/156 (59.0%) of them had bilateral avulsion. 300 (75.2%) women had Stage I/II prolapse while 99 (24.8%) had stage III/IV prolapse. Comparison of the demographics and clinical data between women with or without levator ani muscle avulsion was listed in Table 1. The age at presentation was significantly lower in women with levator ani muscle avulsion (60.8 vs 63.5, $p=0.01$) and more of them had stage III/IV prolapse (35.9% vs 17.7%, $p<0.01$).

Interpretation of results

Compared with women without levator ani muscle avulsion, women with levator ani muscle avulsion presented their symptoms at younger age and more advanced stage of prolapse; while the duration of symptoms before their presentation was similar.

Concluding message

Women who had pelvic organ prolapse and levator ani muscle avulsion presented their symptoms at younger age than those without levator ani muscle avulsion.

Disclosure

None

Table 1.

	No LAM avulsion (n=243)	LAM avulsion (n=156)	P value
Age at presentation (years old)	63.5 (10.0)	60.8 (10.6)	0.01
Body Mass Index (kg/m ²)	25.1 (3.8)	25.5 (3.5)	0.32
Parity	3.07 (1.7)	3.0 (1.5)	0.47
Number of vaginal delivery	3.08 (1.7)	2.83 (1.5)	0.15
Menopausal	172 (70.8%)	99 (63.5%)	0.12
Sexually active	85 (34.0%)	47 (30.1%)	0.25
Duration of symptoms < 12 months	43/210 (20.5%)	27/138 (19.6%)	0.45
Duration of symptoms 12-60months	133/210 (63.3%)	93/138 (67.4%)	0.89
Duration of symptoms >60 months	34/210 (16.2%)	18/138 (13.0%)	0.45
Staging of prolapse			<0.01
• Stage I-II prolapse	200 (82.3%)	100 (64.1%)	
• Stage III-IV prolapse	43 (17.7%)	56 (35.9%)	

Data presented in mean (standard deviation) or number (percentage)