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PELVIC ORGAN PROLAPSE STAGING WITH A FULL OR AN EMPTY BLADDER: DOES IT MAKE A DIFFERENCE?

Hypothesis / aims of study

To determine whether pelvic organ prolapse staging by the Pelvic Organ Prolapse Quantification System (POP-Q) is affected by bladder fullness.

Study design, materials and methods

Forty consecutive women referred for advanced pelvic organ prolapse between November 2008 and May 2009 underwent a pelvic examination by the same pelvic reconstructive surgeon with a full bladder and after spontaneous voiding. The degree of pelvic organ prolapse was assessed using the POP-Q system. Bladder volume was assessed using a bladder scan. All POP-Q parameters before and after urination were compared using a paired student t- test.

Results

Average age of the study patients was 67.1 ± 9.71 years, all were postmenopausal, with a median parity of 3(0-9). Pelvic organ prolapse stage, as well as points Aa (0.62 ± 1.94 vs. 2.58 ± 1.03 , $p < 0.0001$); Ba (1.37 ± 2.83 vs. 4.51 ± 2.17 , $p < 0.0001$); Ap (-1.27 ± 0.71 vs. -0.83 ± 0.99 , $p = 0.002$); Bp (-1.00 ± 1.13 vs. -0.68 ± 1.24 , $p = 0.01$); C (-1.07 ± 3.36 vs. 1.57 ± 3.52 , $P < 0.0001$) and D (-2.77 ± 2.87 vs. 0.14 ± 3.19 , $p < 0.0001$) values were significantly higher after voiding. Nonetheless, pre and postvoid gh, pb and tvl values were not significantly different.

Interpretation of results and Concluding message

Bladder fullness interferes with pelvic organ prolapse assessment causing underestimation of its severity. Bladder emptying should therefore be a standard requisition for POP-Q staging.

Table 1: Pre and Post Void Clinical Data of the Study Patients (N=40)

| | Before Voiding | After Voiding | <u>P</u> |
|---------------------|----------------|---------------|----------------------------|
| Prolapse Stage | 2 (1-4) | 3 (1-4) | <0.0001 |
| Bladder Volume (cc) | 387.76 ± 96.53 | ± 79.67 | 67.16 <0.0001 |
| AA | 0.62 ± 1.94 | 2.58 ± 1.03 | <0.0001 |
| BA | 1.37 ± 2.83 | 4.51 ± 2.17 | <0.0001 |
| C | -1.07 ± 3.36 | 1.57 ± 3.52 | <0.0001 |
| D | -2.77 ± 2.87 | 0.14 ± 3.19 | <0.0001 |
| AP | -1.27 ± 0.71 | -0.83 ± 0.99 | 0.002 |
| BP | -1 ± 1.13 | -0.68 ± 1.24 | 0.01 |
| GH | 4.15 ± 0.44 | 4.15 ± 0.44 | 1 |
| PB | 2.6 ± 0.46 | 2.55 ± 0.24 | 0.21 |
| TVL | 7.9 ± 0.77 | 7.95 ± 0.71 | 0.16 |

Values are presented as median (range) or as mean ± SD

References

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| Specify source of funding or grant | Non |
| Is this a clinical trial? | Yes |
| Is this study registered in a public clinical trials registry? | No |
| Is this a Randomised Controlled Trial (RCT)? | No |
| What were the subjects in the study? | HUMAN |
| Was this study approved by an ethics committee? | Yes |
| Specify Name of Ethics Committee | The Carmel medical center Ethics Committee |
| Was the Declaration of Helsinki followed? | Yes |
| Was informed consent obtained from the patients? | No |

