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COMPARISON BETWEEN THE CLINICAL DIAGNOSIS AND THE NON-MULTICHANNEL URODYNAMIC TEST IN WOMEN ADMITTED FOR URINARY INCONTINENCE.

Hypothesis / aims of study

The urodynamic test is a support in the study in patients with a clinical diagnosis. The urodynamic examination can be necessary in understanding and planning of appropriate treatment for each type of urinary incontinence.[1] But sometimes it can be difficult to interpret, especially when the result s different or does not support the suspect clinical diagnosis. The modern engineering seeks to develop medical devices simpler, more accurate and less invasive. While still not finished learning from multichannel urodynamic test appears the monochannel urodynamic equipment. The clinical history and physical examination have best correlation with the multichannel urodynamic test when the symptoms corresponding to stress urinary incontinence.[2]
We hypothesise like the multichannel urodynamic test not always the monochannel have correlation with the clinical diagnosis of women admitted for urinary incontinence study.
This study aims to know the correlation between the clinical diagnosis of urinary incontinence and the results of the single urodynamic test and which type of incontinence have the best correlation.

Study design, materials and methods

Prospective study with 900 women admitted for symptomatic urinary incontinence study, at Clínica Las Condes, Santiago, Chile. The range of age was 31 and 91 years old. The study was between January 2006 and January 2010. The first diagnosis was realized by clinical history and physical examination and then was compared with the urodinamic diagnosis given by the urodynamic test. The equipment utilized was single channel MoniTorr urodynamic equipment (Gynecare, Worldwide, Ethicon Inc, Johnson & Johnson, Somerville, New Jersey) The urethral retro-resistance pressure and Cystometry was measured. The McGuire classification was used to determine the type of stress urinary incontinence. [Figure]

Results

In 590 patients with clinical diagnosis of SUI the urodynamic registered 54 (type 0), 6 (I), 256 (II), 4 (III), 168 (II+III), 30 (0+HD), 38 (II+HD), 5 (III+HD) and 29 (II+III+HD). In 172 with Mixed Urinary incontinence the urodynamic registered 35 (0), 28 (II), 34 (II+III), 21 (0+HD), 21 (II+HD), 1 (III+HD) and 32 (II+III+HD). In 138 women with urgency incontinence the urodynamic registered 56 (normal), 3 (I), 10 (II), 10 (II+III), 41 (HD), 8 (II+HD) and 10 (II+III+HD)

Clinical		**Non-multichannel Urodynamic Test**			
Diagnosis	**Normal***	**SUI**	**MUI**	**UI**	**Total**
SUI	54	434	72	30	590
MUI	35	62	54	21	172
UI	56	23	18	41	138
Total	**16.1%**	**57.6%**	**16%**	**10.2%**	**900**

Interpretation of results

According our study the results of non-multichannel urodynamic test has better correlation with the clinic diagnosis when are women with stress urinary incontinence, same as has been observed in other studies for the multichannel urodynamic test. However, we must make mention that most women consult for stress urinary incontinence because it is more frequent. The mixed urinary incontinence and urge incontinence are less frequent and they have less correlation between the clinical diagnosis and the results of the study by non-multichannel urodynamic test.

Concluding message

Even if the urodynamic is a test of support for the clinical diagnosis and clinical diagnosis is most important, we must remember that there are cases where clinical diagnosis is different than shown by urodynamic. Even if the urodynamic may have less correlation with the clinic in some cases more complex, we believe it is an objective test that allows us to plan an appropriate treatment for each case. We believe that research in urodynamic should continue in order to develop equipment simpler and less invasive. The non-multichannel urodynamic test meets the latter two characteristics. Further studies comparing the results of the single channel and multichannel urodynamic test are required. Also standardize the interpretation of results will allow us to compare patients, diagnostics and techniques.

References

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Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**