

## INCIDENCE OF URGE, STRESS AND MIXED FEMALE URINARY INCONTINENCE

### Hypothesis / aims of study

This study investigated the incidence disorders of the Lower Urinary Tract (LUT), with were urge, stress and mixed female urinary incontinence (UI) and the primary causes of UI in these different classifications.

### Study design, materials and methods

This was a **cross-sectional** study with retrospective data collection from the medical records of incontinent women, with no direct contact with the subjects. The medical records of 222 women were selected, and anonymity was preserved. 17 subjects were excluded of the study due to incorrectly filled or incomplete evaluations sheets, with 205 subjects remaining in this study. The resulting database includes information from patient encounters between August 7, 2006 and May 27, 2009. The information was stored in Excel. Statistical analysis was performed using the program GraphPade, and the results were analyzed by the researchers. The analysis was performed according to International Continence Society (ICS) definitions for UI and information found in the medical records. The level of significance used was  $p < 0.05$ .

### Results

The women average age of the 205 medical records consider in this study was 52,94 years (SD  $\pm$  12,47).

When the data were analyzed in order to classify the female UI, we can observe that this data were significant ( $p < 0,0001$ ), since 82,44% of women showed mixed UI, 11,71% with stress UI and only urge 5,85% UI .

In relation to the main reasons that cause UI, is observed that in stress UI the reasons most frequently were: sneezing with 87.5% of the cases and coughing with 83.33%, followed by 75% with laugh and load weigh with 62.5% of the cases. The women average age with stress IU was 47,58 years (SD  $\pm$  9,65).

On the other hand, in the UI urge, the main reasons that cause it were: when they felt strong desire to urinate with 83.33%, when they were near to the toilet with 58.33%, followed by 33,33% with insensible lost, and in contact with water when they heard its sound, 8.33%. The women average age with urge UI was 57.58 years (SD  $\pm$  12.69).

Referring to the most frequently reasons of mixed UI, we can see similar results if comparing with stress UI and urge UI: 92.31% of the cases were related to coughing, 86.39% with sneezing, 76.92% with laugh and 65.09% with load weight; 76.92% of the cases were related to a strong desire to urinate, 72.19% when they were near to the toilet, 62.72% had insensible lost and 50.89% when in contact or to hear water. The average age of women whose present UI mixed was 53.22 years (SD  $\pm$  13.28).

### Interpretation of results

The majority of the articles found in the literature state that stress UI has the highest incidence without any supporting data. Some studies in the literature demonstrate a higher incidence of mixed UI and a higher prevalence of mixed UI when the diagnosis is made by clinical complaint <sup>(1)</sup>. The studies found in the literature corroborate those of the present study, which found 82.44% with mixed UI, followed by 11.71% with stress UI and only urge 5.85% UI.

The literature is scarcely related to the causes of urine loss. It is possible that a higher incidence in stress UI (87.5% sneezing and 83.33% coughing) and urge UI (83.33% strong desire and 58.33% near to the toilet) were the same as mixed UI (92.31% coughing, 86.39% sneezing, 76.92% strong desire and 58.33% near to the toilet), which makes the data consistent when analyzed separately. Referring to the age of the incontinent women, these data are similar to the data found in the literature, showing that incontinent women are older (age higher than 45 years) than continent women (average age is 36 years old) <sup>(1)</sup>.

### Concluding message

The majority of women had mixed UI followed by stress UI and urge UI. Coughing and sneezing were the most frequent causes of urge UI. Mixed UI represents the association of the risk factors found in the stress and urge UI.

### References

1. FITZGERALD S., et al. Urinary Incontinence. Impact on working women. AAOHNJ. 2000, 48(3):112-18.

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<b>What were the subjects in the study?</b>	<b>NONE</b>

