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URINARY INCONTINENCE EVALUATION IN WOMEN WHO LIVE IN RIVERSIDE COMMUNITY

Hypothesis / aims of study
To evaluate the prevalence of urinary incontinence and risk factors for developing this pathology in women who live in riverside Community in Amapa State, Brazil.

Study design, materials and methods
Observational study, was performed in Igarape da Fortaleza, an Amapa State, Brazil from 1st july 2011 to 31st January 2012 . This region has 1.613 women with more than 18 years old and 235 women were analysed after sample calculation regarding to urinary incontinence symptoms and their risk factors for developing this pathology. The sample calculation was defined after the pilot study with 50 patients, because there was not published study about urinary patients and the study was approved by Ettics Committee of the Department.
Region of Study Characteristics: These people live beside no the Igarape da Fortaleza river (Affluent of Amazonas river) at Amapá State, Brazil. The main economic activity is the fishing , açai extraction and tourism. The patients are normally submitte to vaginal delivery without episiotomy or medical assistance. The conexion among the houses is by the wood bridges.
Methods: The inclusion criterion was to be woman, 18 years old and a resident of Igarape da Fortaleza. The patients were evaluated by the questionnaire about their urinary symptoms as: stress urinary incontinence, urgency, urgency incontinence, frequency, and nocturia. Also, risk factors as age, parity, menstrual status and body mass index (BMI) were analyzed. For this analysis the patients were divided in two groups- with stress urinary incontinence group (UIG) and without urinary incontinence group (CG).
Statistical analysis: The quantitative analysis was performed by Shapiro-Wilk test and the qualitative variables were presented by distribution of relative and absolute frequency. The comparison of quantitative variables was performed mah_laundryservice@hotmail.comby Kruskas- Wallis and of qualitative variables by Q-quadrado test . The statistical anlalysis was performed by BioEst 5.3 version software.

Results
The study evaluated 235 patients. The continent group had 167 and urinary incontinence group 68 patients. The prevalence of stress urinary incontinence (SUI) was 28.9% (CI- 23.1%- 34.7%) (Figure 1)
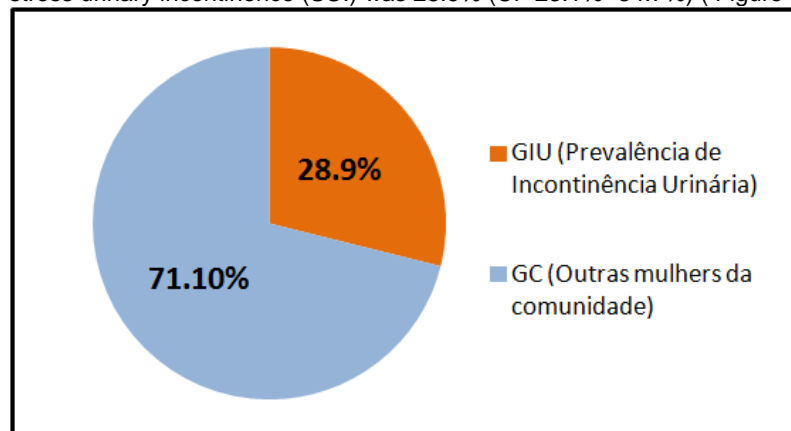

Figure 1: Prevalence of SUI in women who live in riverside community.
The analysis of the age showed that there was singnificant difference between the groups : UIG- 44.2 +- 11.4 years old ; CG- 37.9 +- 12.5 years old (p<0.05, Student t)
Regarding to the parity, there was significant difference betwwen the groups (p<0.05) : UIG- median rate- 4.7 deliveries (SD – 2.7) ; CG- 4.1 deliveries (SD- 3.0).
The difference between these groups also was significant in relation to BMI: UIG- 26.9+- 4.7);
CG- 24.8+- 4.1 (p<0.05) (Table 1).
The other variables as vaginal or cesarean delivery, weigth of the baby and menopause there were not signicant difference p> 0.05). (TAble 1)

Table 1: Distribution of risk factors variables between UIG (n=68) and CG (n=167), women who live in riverside Community.

	Rate (UIG)	SD	Rate (CG)	SD	p-value
Parity	4.7	2.7	4.1	3.0	0.0307*
Vaginal delivery	4.4	2.6	4.2	2.8	0.3703
Cesarean	1.6	0.9	1.4	0.7	0.5257
Weight /baby	3577	492	3430	687	0.1747

BMI	26.9	4.7	24.8	4.1	0.0009*
Menopause	47.2	2.7	48.1	2.7	0.1828

* significant

Interpretation of results

The prevalence of urinary incontinence is very variable in the literature. In Greece was 27%, in Italy 15% and 53.7% in Japan (1). We know that this pathology causes negative impact in Quality of life and dependents on risk factors of each population. Then, we need to identify the risk factors from each region for preventing this pathology.

We observed great diference regarding to risk factors in the literatura. EURIG study (2) demonstrated that 1 year after a delivery, the prevalence of UI was 12%; going up to 47% after 2 deliveries. According to type of the delivery, the prevalence of UI in nulipara and after vaginal delivery or cesarean was respectively: 10.1%, 21% ,and 15.9% (3)

Thus, we wanted to study the prevalence and the risk factors in a specific Community with their specific type of living as a Riverside Community. Because they live beside the Igarape da Fortaleza river (Affluent of Amazonas river) at Amapá State, Brazil. The main economic activity is the fishing , açai extraction (physical exercise)and tourism. The patients are normally submitted to vaginal delivery without episiotomy or medical assistance.

We demonstrated the prevalence was 28.9%. The most important risk factors were age, parity and BMI. Interesting to realize that type was not significant, due to their type of living.

Concluding message

The prevalence os stress urinary incontinence in women who live in a riverside Community in Brazil was 28.9%. The risk factors with significant difference for developing stress urinary incontinence in this Community were: age, parity and obesity.

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