

## EVALUATION OF VAGINAL PH OF WOMEN UNDERGOING ELECTROSTIMULATION INTRAVAGINAL: PRELIMINARY RESULTS.

### Hypothesis / aims of study

The normal vaginal microflora is predominated by vaginal lactobacilli, which maintains the vaginal pH acid, conferring a protective action against the growth of potentially pathogenic microorganisms. Premenopausal women with no vaginal infections, they have a normal vaginal pH ranging from 3.8 to 4.5, and in post-menopausal women have a higher vaginal pH above 5.0. The intravaginal electrical stimulation (IVES) is a technique used to treat stress urinary incontinence (SUI) and is used to strengthen the pelvic floor muscles. To date, it is not known whether this electrical stimulation applied directly to the vaginal canal can influence the local pH. The aim of this study was to evaluate and compare the vaginal pH of premenopausal women and postmenopausal submitted to physiotherapy treatment of SUI, immediately before and after IVES.

### Study design, materials and methods

A prospective and comparative study was conducted with 12 women with clinical complaints of SUI (6 premenopausal and 6 postmenopausal women). The IVES was applied for 8 sessions during 20 minutes. The measures of vaginal pH were made using a strip of indicator paper applied on the lateral wall of the vagina immediately before and after each session IVES. Women with a history of sexually transmitted disease, presence of intrauterine device, hormone replacement, intravaginal drug, urinary tract infection and / or active vaginal therapy were excluded. Data were analyzed for mean, standard deviation, and the values were compared between the 1st and 4th week of treatment. For each group using paired Student's t test with significance level of  $p < 0.05$  was applied. study.

### Results

The 6 premenopausal women had a mean pH of 4.8 ( $\pm 0.1$ ) and 5.1 ( $\pm 0.1$ ) in the 1st and 4th weeks respectively, with no significant difference ( $p = 0.180$ ). In the group of 6 post-menopausal women the values were higher, being respectively 6.0 ( $\pm 0.2$ ) and 6.0 ( $\pm 0.3$ ), in the 1st week and 4th ( $p = 0.691$ ). There were no significant differences in pH values before and after treatment and between groups. No woman had complaints or symptoms associated.

### Interpretation of results

At the present preliminary study, IVES can be considered a safe technique in this study as it did not cause significant adverse effects on the vaginal ecosystem. So, it is important to emphasize that the lack of a control group and follow-up was an important limitation. A control group was not used because this was an initial evaluation of this approach in our institution, many randomized studies have shown no UI improvements in inactive control groups and vaginal ecosystem variation is observed in many women. This is perhaps the first study to evaluate the vaginal ecosystem before and after using IVES. Further studies involving a larger sample size, control group, longer follow-up and an analyze of women only on reproductive or post-menopausal age should be carried out to corroborate the findings of this issue about women's health.

### Concluding message

The IVES was not associated with significant changes in vaginal pH in this study.

### Disclosures

**Funding:** nenhuma **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Comitê de Ética em Pesquisa da Unicamp **Helsinki:** Yes **Informed Consent:** Yes