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THE STUDY ON THE RELATIONSHIP BETWEEN THE SERUM RELAXIN LEVELS AND THE PELVIC FLOOR PROLAPSE

Hypothesis / aims of study

Pelvic floor prolapse refers to a wide range of issues that occur when muscles of the pelvic floor are weak, tight, or there is an impairment of the sacroiliac joint, lower back, coccyx, or hip joints. Tissues surrounding the pelvic organs may have increased or decreased sensitivity or irritation resulting in pelvic pain. Many times, the underlying cause of pelvic pain is difficult to determine. Serum Relaxin (RLX) levels could promote growth of the mammary gland, inhibit uterine contractile activity, and dilate and soften the cervix uteri. RLX is now considered a hormone with more than reproductive functions: it has antifibrotic, vasodilator, and pro-angiogenic properties; it controls pituitary hormone release, interacts with cerebral cortical receptors, and increases ovarian apoptosis. The relationships between the serum relaxin levels and the pelvic floor prolapse (POP) were investigated in this paper.

Study design, materials and methods

39 POP patients (POP group) and 39 normal women (normal group) were enrolled to this study between Oct 2010 and Apr. 2011. The relationships between women pelvic organ prolapse and serum Relaxin levels were analysed.

Results

The serum relaxin levels in POP group was 406.7 ± 311.2 ng/L, higher than the normal group (199.4 ± 208.7 ng/L), there was significant difference between two groups ($P < 0.05$); The serum relaxin levels of menopausal women was 172.0 ± 197.5 ng/L, lower than non-menopausal women (587.5 ± 716.8 ng/L), the data was with statistical significance ($P < 0.05$); The serum relaxin levels of menopausal women in POP group was 226.2 ± 178.8 ng/L, the serum relaxin levels of menopausal women in the normal group was 108.4 ± 98.7 ng/L, there was significant difference between two groups ($P < 0.05$); The serum relaxin levels of non-menopausal women in POP group was 1870.2 ± 264.4 ng/L, the serum relaxin levels of non-menopausal women in the normal group was 373.7 ± 370.4 ng/L, there was significant difference between two groups ($P < 0.001$).

Interpretation of results

Serum Relaxin (RLX) is secretion from the corpus luteum in non-menopausal women. In postmenopausal women, the source of Serum Relaxin (RLX) will be variety of organs such as endometrium. The physiological action of Relaxin is

Concluding message

Elevation of serum Relaxin level might be the cause of female pelvic organ prolapse.

Disclosures

Funding: Shanghai Municipal Health Bureau Foundation, 2006057 **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Ethics committee of Shanghai Jiaotong University affiliated 6th hospital **Helsinki:** Yes **Informed Consent:** Yes