

# Gynaeco-obstetric background and vaginal delivery instrumentation as predisposing factors for urethral prolapse in postmenopausal women

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## INTRODUCTION

Urethral prolapse is defined as the drop and eversion of the urethral mucosa, it affects postmenopausal women and prepubertal girls. Its aetiology is attributed to several factors, including genetic and environmental predisposition, as well as recurrent urinary tract infections, abdominal trauma, burns, malnutrition, sexual abuse, oestrogenic deficiency, oophorectomy, chemotherapy, asthma and high airway infections, hernias, and preterm labour.

The aim of this study is to know the relationship between the gynaeco-obstetric background and urethral prolapse (as a possible origin or risk factor).

## MATERIAL AND METHODS

**Study design:** Retrospective observational.

**Study period:** 17/10/2000 - 15/04/2021

**Inclusion criteria:** female adult patients who have undergone surgery for urethral prolapse.

**Variables:** Age at surgery, body mass index (BMI), concomitant disorders and drug treatment, toxic habits, medical and surgical background, gynaeco-obstetric history; health status defined by the American Society of Anaesthesiologists (ASA) Physical Status Classification System, reason for consultation, time between diagnosis and surgery, functional results: SF-36 quality of life questionnaire, urinary incontinence, bulge sensation, bleeding, dyspareunia, urinary urgency and/or frequency.

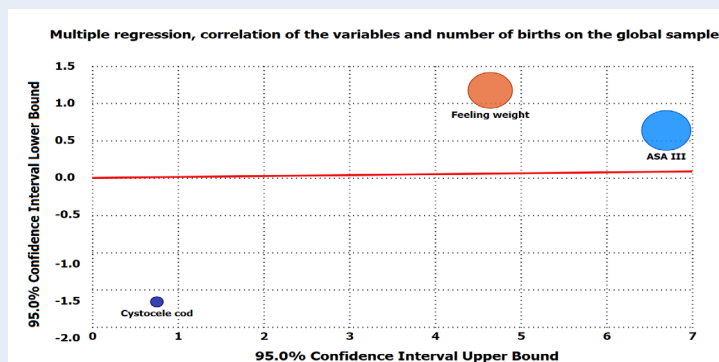
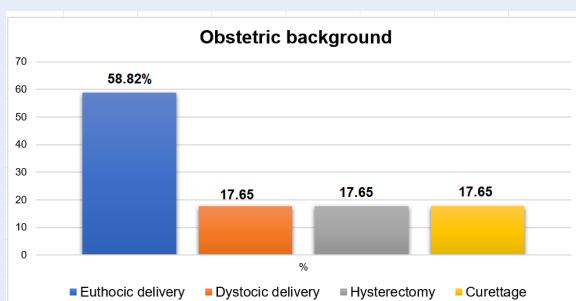
17 patients

## RESULTS

Median age was 71.00 years (range 57-81). Mean BMI was 23.67 kg/m<sup>2</sup> (SD 2.28, range 20.81-29.38). Median number of deliveries was 2.00 (SD 1.10, range 0-4): 58.82% of patients had eutocic deliveries ( $p=0.0006$ ), 17.65% had dystocic deliveries requiring vaginal instrumentation ( $p=1.0$ ) and 17.65% have had a caesarean section ( $p=1.0$ ). A history of hysterectomy was found in 17.65% of patients ( $p=0.51$ ).

In patients with previous vaginal instrumentation, no differences were found in the incidence of urethral prolapse between patients consulting because of vaginal bulge sensation and other reasons for consultation; however, it was three times more frequent to have both hysterectomy and vaginal bulge sensation (33.33%) than hysterectomy without bulge sensation (9.99%), although no statistically significant differences were found ( $p=0.5147$ ).

In logistic regression analysis, the greater the number of deliveries, the greater the probability of presenting urethral bulge ( $p=0.032$ ). Correlation between cystocele and number of deliveries was studied, and a negative regression coefficient was found (-0.455); that means that patients without cystocele had a greater number of deliveries ( $p=0.003$ ).



## CONCLUDING MESSAGE

✓ A medical background with hysterectomy, cystocele or caesarean sections doesn't seem to be linked with urethral prolapse.

✓ Although a greater number of deliveries was associated more frequently with the reason for consultation of vaginal bulge sensation in patients with urethral prolapse, we cannot affirm that pregnancy and deliveries are risk factors for the development of urethral prolapse.