

IMPACT OF ABSORBENT PRODUCTS, DULOXETINE AND A TRANSOBTURATOR MIDURETHRAL SLING ON QUALITY ADJUSTED LIFE YEARS IN WOMEN WITH STRESS URINARY INCONTINENCE

Hypothesis / aims of study

Stress urinary incontinence (SUI) is one of the most common dysfunctions of the lower urinary tract, and affects patients' quality of life. The principle of quality adjusted life years (QALYs) was developed by the World Health Organization (WHO) and the World Bank to enable rational health care. QALYs are calculated as the sum of the highest quality of life years gained as a result of medical intervention. The aims of this study were to compare QALYs after absorbent products, duloxetine and transobturator midurethral sling implantation in a group of women with SUI.

Study design, materials and methods

Women were included in the prospective study based on the following inclusion criteria: age greater than 18 years, SUI, not using absorbent products or duloxetine and surgical treatment of SUI. Exclusion criteria were urgency or neurogenic urinary incontinence, lower urinary tract cancer and urogenital fistulas. Women were evaluated after three six-month periods. In the first period (PAD), incontinence absorbent products were used. In the second period (Dx), a full titration oral dose (80 mg per day) of duloxetine was used. The third period (TOT) occurred after the transobturator midurethral sling implantation. The measurement included the International Consultation on Incontinence Questionnaire-Urinary Incontinence Short Form (ICIQ-UI), on which, the total score ranges from 0 (without SUI) to 21 (the most severe SUI). The calculation of the weighting factor (WF) was obtained by linear transformation of the ICIQ-UI total score as follows: $1 - \frac{\text{ICIQ-UI total score}}{21}$. The QALYs was calculated as the WF x period of intervention.

Results

The study included 125 women, of whom, 102 were analysed (81.6%). All patients were Caucasian, with a mean age of 53 years (range 26–69 years). In the PAD, mean ICIQ-UI score decreased from 18.3 to 14.4. In the Dx, the mean score decreased from 16.9 to 11.5. In the TOT, the mean score decreased from 17.2 to 1.7. The WF changes after the PAD was 0.2 ± 0.1 , after the Dx, was 0.3 ± 0.2 , and after the TOT, was 0.7 ± 0.1 . The mean number of QALYs achieved after the PAD was 0.16 ± 0.12 , after the Dx, was 0.25 ± 0.13 and after the TOT, was 0.46 ± 0.05 . The changes were statistically significant ($p < 0.01$).

Interpretation of results

All methods increased the number of QALYs. The most important intervention was transobturator midurethral sling implantation but absorbent products had significant impact on quality of life as well as duloxetine in patient with SUI.

Concluding message

Incontinence absorbent products improved quality of life but not the degree of SUI, duloxetine improved quality of life and decreased the degree of SUI, and the transobturator midurethral sling improved quality of life and eliminated SUI.

Disclosures

Funding: None **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Ethics committee of University Hospital Martin, Slovak Republic **Helsinki:** Yes **Informed Consent:** Yes