

# THE ROLE OF QUALITY OF LIFE INDICATORS IN ANTIRESORPTIVE THERAPY ESTIMATION

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## THE ROLE OF QUALITY OF LIFE INDICATORS IN ANTIRESORPTIVE THERAPY ESTIMATION

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**Objectives.** At the moment the term «quality of life» (QL) is not only a generalized representation of physical, psychological and social components of human's health, but also is a tool in many clinical researches.

**Aim.** Estimation of alendronate and strontium ranelate therapy of women with the postmenopausal osteoporosis (OP) under QL study.

**Materials and methods.** 74 women with postmenopausal OP, that hadn't received any antiosteoporotic treatment, were examined. Mean age of women is  $58,6 \pm 4,7$ . Mean age of menopause beginning is  $48,2 \pm 4,0$ , duration of menopause is  $10,4 \pm 5,0$ . Control set included 23 women of postmenopausal age without OP, equatable to index group in age ( $58.7 \pm 2.3$ ;  $p = 0.936$ ), education and social status. Index group patients were divided into two subgroups. The first subgroup was taking alendronate (70 mg/week) and the second subgroup was taking strontium ranelate (2 g/day). All women were taking 1000 mg of elemental calcium and 800 IU of vitamin D3 daily. The follow-up period took 12 months. Measuring points: before therapy, after 3, 6 and 12 months of therapy. General questionnaire SF-36 (0 – the worst, 100 – the best QL) and special questionnaire QUALEFFO-41 (0 – the best, 100 – the worst QL) were used to estimate QL. Bone density was measured at the beginning of the study and after 12 months using DXA scans and was compared to control set.

**Results.** According to QUALEFFO-41 total score (TS) calculated before the therapy, significant differences of QL at the osteoporosis were revealed. These differences vary when OP is complicated by vertebral fractures and hip fractures (TS =  $53.2 \pm 21.9$  %,  $p=0.008$ ) and when it's not (TS =  $42.1 \pm 10.4$  %,  $p=0.0007$ ) in comparison with the control set (TS=  $25.8 \pm 8.6$  %,  $p=0.0002$ ).

QL indicators were increased in the group that was taking alendronate as well as in the group that was taking strontium ranelate in comparison with control set. After 3 months according to SF-36, significant growth was revealed on 7 scales out of eight (excluding scale «social functioning (SF)»,  $p=0.627$ ). That was a consequence of alendronate intake. The same result was got as a consequence of strontium ranelate intake (excluding scale «emotional functioning»,  $p=0.114$ ).

In 6 months after the treatment beginning QL improvement was observed on the scales «physical functioning (FF)» ( $p=0.028$ ),

«pain (P)» ( $p=0.0003$ ), SF ( $p=0.021$ ), and «mental health (MH)» ( $p=0.016$ ). After 6 months QL indicators were improved on the scales FF ( $p=0.007$ ), «role physical functioning » ( $p=0.006$ ), P ( $p=0.003$ ), «general health» ( $p=0.019$ ), «vitality» ( $p=0.026$ ) and MH ( $p=0.005$ ) due to strontium ranelate intake.

After 12 months QL was improved on all eight SF-36 scales as a result of both alendronate and strontium ranelate intake ( $p<0.01$ ). No statistically changes of QL indicators were revealed in control set on all time intervals ( $p>0.05$ ).

**Conclusions.** Complicated osteoporosis as well as not complicated by fractures one is attended by the patients' QL decrease. SF-36 and QUALEFFO-41 can be used as early evaluation criteria of impact of antiosteoporosis therapy along with standard laboratory-tool methods.