

# EFFECT OF ZOLENDRONIC ACID IN TREATMENT OF POSTMENOPAUSAL OSTEOPOROSIS

V Środkowo Europejski Kongres Osteoporozy i Osteoartrozy oraz XVII Zjazd Polskiego Towarzystwa Osteoartrologii i Polskiej Fundacji Osteoporozy, Kraków 29.09-1.10.2011

## Streszczenia:

Ortopedia Traumatologia Rehabilitacja 2011, vol 13 (Suppl. 1). str 118

P15

## EFFECT OF ZOLENDRONIC ACID IN TREATMENT OF POSTMENOPAUSAL OSTEOPOROSIS

**Povoroznyuk V., Grygorieva N., Vayda V., Balatska N., Dzerovych N., Klimovickii F.**

Department of Clinical Physiology and Pathology of Locomotor Apparatus, Institute of Gerontology AMS Ukraine,

Ukrainian Scientific-Medical Centre for the Problems of Osteoporosis, Kyiv, Ukraine

**Introduction.** Zoledronic acid is a new bisphosphonate used for treatment of postmenopausal osteoporosis. We have based our findings on results of intravenous infusions of zoledronic acid in 252 cases, 61 of which – secondary.

**Aim.** To determine the efficacy and safety of intravenous infusions of zoledronic acid, and effects on vertebral pain, bone mineral density (BMD) in postmenopausal women with

osteoporosis.

**Object.** 89 postmenopausal women with osteoporosis aged 50-79 years (average age –  $65.3 \pm 0.8$  years) were examined.

**Methods.** Evaluation of pain syndrome and life quality was made with questionnaires. BMD was determined with Dual-energy X-ray absorptiometer „Prodigy” (GE Medical systems). 5 mg of zoledronic acid (Aclasta, “Novartis”) was administrated by intravenous injection. During the complex treatment patients received 1 tablet of calcium combined medicine (Calcium – 500 mg, Vit. D – 400 IU) 2 times a day during 12 months. Examination was performed before and after three, six, nine and twelve months of treatment course.

**Results.** A reliable decrease of vertebral pain syndrome by visual analogue scale was observed after three months. The pain syndrome decreased and improvement of life quality during all period of treatment. The BMD of spine significantly after three ( $0.043 \pm 0.055$  g/cm<sup>2</sup>;  $F=-7.5$ ;  $p=0.0000$ ), six ( $0.048 \pm 0.054$  g/cm<sup>2</sup>;  $F=-7.2$ ;  $p=0.0000$ ), nine ( $0.073 \pm 0.051$  g/cm<sup>2</sup>;  $F=-9.4$ ;  $p=0.0000$ ) and twelve ( $0.070 \pm 0.057$  g/cm<sup>2</sup>;  $F=-8.5$ ;  $p=0.0000$ ) months. We did not find significant difference in patients depending on age (50-59, 60-69 and 70-79 years) and state of bone (osteoporosis or osteopenia).

**Conclusion.** Intravenous infusions of zoledronic acid (5 mg) were shown to be effectively increasing BMD, decreasing pronounced vertebral pain syndrome and improving life quality in postmenopausal women with osteoporosis.