

THE ANNUAL AGE-ADJUSTED INCIDENCE OF HIP FRACTURES IN GOMEL AREA IN THE REPUBLIC OF BELARUS IN 2007-2010

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Objectives. Low-trauma fractures in elderly people are a major public health problem. The most complicated social-medical consequences can be observed in particular under hip fractures.

Aim. The objective of this study was to define the current hip fracture rates at persons over age 50 residing in Gomel city and Gomel area for the period of 2007-2010.

Materials and methods. For estimation of the annual age-

adjusted incidence of hip fractures there was used the algorithm to calculate all disease cases including: collection of information about emergency calls on low-trauma fractures of the proximal humerus, verification of hip fracture cases at patients transported by emergency teams into medical institutions providing stationary help and calculation of the annual age-adjusted incidence parameters based on the statistical data of average annual urban and rural population by ages with the interval of 5 years. The hip fracture case was admitted to be verified if a discharge lists of the patient who left the hospital contained the following main diagnosis S72 (ICD-10) with completion of orthopedic surgery, skeletal traction or immobilization.

Results. The study was provided in the region with the population of about 570.6 thousand people, out of them over age 50 – 176,1 thousand (30.9%). Totally 726 patients, 487 (67.1%) females and 239 (32.9%) males, were transported to the hospital for treatment of an acute hip fracture in 2007-2010. The general number of fractures in 2007 made up 182, in 2008 – 186, in 2009 – 200 and in 2010 – 158, and there was not marked statistically significant decrease of incidence parameters ($p>0.05$). The average parameters of the annual age-adjusted incidence for the indicated period made up at males aged 50-54 from 35, 1/100 000 up to 278, 4/100 000 at males aged over 80. The similar parameters at females made up 12, 8/100 000 and 558, 2/100 000, accordingly. The ratio of incidence parameters at males and females aged over 50 was equal to: male:female=1:1.3. Under the comparison of incidence parameters between urban and rural population there was not obtained statistically significant differences ($p>0.05$). There were not marked differences between the parameters of the annual age-adjusted incidence at males and females except for age group over 80 ($p=0.017$).

Conclusions. The annual age-adjusted incidence of hip fracture at residents of Gomel area aged over 50 in 2007-2010

made up 35.1–278.4/100 000 in men and 12.8–558.2/100 000 in women. Hip fractures in male population aged 50-80 can be met with the same frequency as among females.