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The object of research is the issue of timely diagnosis of prostate cancer at the age of 50–65 years in the Republic of Belarus. The aim of study is find out as far as effectively and realization of population screening of prostate cancer is expedient for men in age 50–65 during the pilot project of Screening of prostate cancer in Republic of Belarus.

Introduction in everyday urology practice of determination of level of prostatic specific antigen in the whey of blood resulted in the exposure of plenty of forms without symptoms of prostate gland.

The analysis of prostatic specific antigen in the whey of blood became one of fundamental in screening and monitoring of patients the cancer of prostate gland, in his differential diagnostics with the adenoma of prostate gland, quite often largely determining the dynamics of efficiency and prospect of his treatment.

Keywords: cancer of the prostate gland, prostatic specific antigen, echography, magnetic resonance imaging.

The incidence of prostate cancer (PCA) in the Republic of Belarus is growing rapidly. According to the Belarusian Chancery Registry, the number of cases of prostate cancer reported annually in the Republic increased from 932 in 1996 to 3,122 in 2011 (3,5 times). The growth rate of PCA takes the 1st place among all malignancies in the country. At present, there is an exponential increase in the incidence of PCA. Mortality rates also remain high. Over the past 20 years, the mortality from prostate cancer has almost tripled.

Modern methods of diagnosis of prostate cancer are based on the definition of prostate-specific antigen (PSA) followed by systematic biopsy of the prostate under the control of trans rectal ultrasound (TRUS). This allows you to identify the disease in the early stages, which, in turn, significantly improves the results of treatment. [2].

At the same time, during the screening, there is a problem of detecting latent, or "histological" forms of cancer that do not appear clinically, which leads to over diagnosis and excessive treatment.

In the Republic of Belarus, a program of a "pilot" screening project for PCA was developed, approved by the order of the Minister of Health and successfully conducted in selected districts of the republic with a total population of 500 thousand people. The obtained data made it possible to analyze the effectiveness of the Program under the following criteria: the number of patients surveyed, the number of detected cases of cancer during screening, the distribution by stages of newly diagnosed cases in the region, the distribution by type of treatment of all newly diagnosed cases in the region, and stratification of cancer risk in patients before treatment. In addition, the impact of screening on the main epidemiological indicators for PCA in the respective region was assessed.

In connection with the foregoing, the purpose of this work was to evaluate the effectiveness and feasibility of conducting a population screening for prostate cancer in men aged 50 to 65 years during a "pilot" screening project in the Republic of Belarus.

During the screening, the dependence of IV stage of prostate cancer on age was analyzed. The study showed that the older a man is, the more often patients are in old age visit doctors, therefore, better and earlier diagnosed possible violations. In two years of screening, the indicator for prostate cancer of Stage IV in men aged 50–54 years in Belarus as a whole decreased from 52 % to 22 %.

The screening also showed that although the incidence of prostate cancer of the fourth stage in all ages began to decline, among men aged 45–49 years, the neglect of the disease is still high (30 %), because this age does not enter the screening program.

Prostate cancer causes death in 3 % of men over 50 years of age. This is a relatively slow progression of the disease. If a patient under 65 years of age remains untreated, the probability of his death from PCA is 75 %.

The development and implementation of a pilot screening project for prostate cancer has significantly improved the detection of localized forms of the disease. In the screening group of the 1–11 stage, 68,6 % were compared with 42,6 % in the republic average.