

To the question of PSA specificity
as a tumor marker of prostate cancer
G.S. Malintsev
("Eliseeva Medical Center", Moscow, Russia)

Prostate cancer (PC) is one of the most common malignant neoplasms in middle-aged and elderly men.

From the late 1970s to the early 1990s, the incidence of prostate cancer nearly doubled. In 2000, 180,400 new cases of prostate cancer were registered in the United States and 31,900 patients died from this disease, in Europe - 200,000 and 40,000, respectively. In the structure of oncological diseases in a number of countries, prostate cancer takes the 2nd or 3rd place after lung and stomach cancer, and in the USA and Sweden - the 1st place. Mortality in the first year of life after diagnosis is about 30%, which indicates an extremely low detection rate of the disease in its initial stages.

In terms of growth in Russia (growth rate of 31.3%), prostate cancer takes 2nd place after melanoma (35%) and significantly exceeds malignant diseases of the lungs (5%) and stomach (10, 2%).

Doctors are worried not only by the increase in the total number of patients, but also by the increase in mortality from this disease. When analyzing the incidence of prostate cancer in Russia, it turns out that in almost 70% of patients it is first detected in stages 3-4. Based on this, it becomes quite obvious that the incidence of prostate cancer in our country is much higher due to the undetected localized cancer.

PCa practically does not occur before the age of 40 and becomes more and more frequent with each subsequent decade of life. The hopes to reduce the number of deaths from prostate cancer are based on two tactics - early diagnosis and effective treatment of the disease in its early stages.

Today, according to many oncologists, the most valuable tumor marker of prostate hyperplasia and cancer is the prostate-specific antigen. Since 1987, PSA has been widely used in the diagnosis of prostate cancer, process staging, assessment the effectiveness of treatment. The parameters evaluated by this test show a sensitivity of up to 70% and a positive predictive value of 26 to 52%.

PSA testing has increased the rate of detection of prostate cancer in the early stages, in which a radical cure is possible.

Prostate-specific antigen is a glycoprotein produced by the secretory epithelium of the prostate and which provides ejaculate liquefaction. The main amount of protein in the acini ducts enters the posterior part of the urethra. The concentration of PSA in the ejaculate is approximately 1 million $\mu\text{g} / \text{ml}$, while in the blood serum in the absence of prostate diseases it is not more than 4 ng / ml . It is known that the reason for the increase in PSA levels in the presence of infection or inflammation is an increase in permeability and destruction of barriers, and not an increase in PSA production by epithelial cells.

Another mechanism leading to increased PSA expression in

blood flow is the mechanical pressure of hyperplastic tissue on unchanged prostate tissue, which can manifest itself in a combination of prostate cancer, benign prostatic hyperplasia (BPH) and chronic prostatitis in various combinations. It is also necessary to take into account such a factor as a different degree of permeability of the histohematogenous barrier, which is individual for each organism. Thus, a combination of various factors can lead to significant difficulties in the interpretation of PSA values.

Therefore, since PSA is a protein produced in the normal prostate gland, it is not disease specific. In other words, an increase in PSA levels can be due to a number of reasons, among which the most significant are:

- prostate cancer;
- benign prostatic hyperplasia;
- the presence of inflammation or infection in the prostate;
- ischemia or prostate infarction.

I must say that, according to our observations, along with PSA, some indicators of autonomic resonance testing (ART) are a very good help in diagnosing prostate cancer:

- oncoprotein;
- Fuzailov's preparations;
- parasitic burdens, especially schistosomiasis;
- presence of tumors (psorium D32);
- carcinous phenomena and carcinomas;
- causative agents of genitourinary infections.

Thus, the conclusion suggests itself that an increase in the level of prostate-specific antigen in the blood does not always indicate the presence of a malignant process and, in our opinion, the diagnostic value of PSA as a tumor marker of a malignant process in the prostate gland can be taken into account at values of 20 ng / ml and higher. Values less than this require a more thorough follow-up examination of the patient.

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