

THE POSSIBILITIES OF RADIONUCLIDE DIAGNOSTIC OF THYROID GLAND CANCER

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Among radionuclide methods of thyroid gland cancer diagnostics there is tyrosceintigraphy with preparation Technetrit 99 mTc (MIBI). The goal of this research is to study the informativeness of this diagnostic study among patients with knot wen shape. Dynamic tyrosceintigraphy within the first 20 minutes after the preparation introduction once again two hours after the introduction was carried out among 181 patient. For all patients the correlation «cold knot/intact thyroid gland tissue» was estimated during each stage of the research. Besides, ultrasound investigation, tyroglobulin (TG) estimation, and knot biopsy was carried out. Depending on the technetrit accumulation degree all patient were divided into three groups. The first group – no medicine accumulation in knot. The second group – little accumulation, the third group – significant accumulation of medicine.

While analyzing the obtained data we have established a certain correlation dependence between indexes of TG and «knot – intact tissue» among patients of the second and the third group ($r = 0,66$).

Such dependence was not registered among the patients of the first group. No definite dependence between the size of visualized knot and the level of tyeglobulin in patients' blood, hormonal function of thyroid gland and technetrit test results.

It has been outlined that a single increase in index «knot – intact tissue» is insufficient to adequately diagnose cancer. Consideration of a factor of further dynamics of its accumulation after an hour and two hours allows us to significantly increase the test informativeness from 63 up to 82%. Unreliable negative test results were registered among patients without accumulation of technetrit in knot (about 10%) that were linked to small knot size (microarcinomes < 0,8 cm). We should outline that in 88% percent of cases of high preparartion accumulation under ultrasound investigation hypoechogenic formations were observed, in 79% of cases – its increased blood supply, 76% – microcalcifications. Research with technotrit allowed us to reveal 12 patients with thyroid gland cancer who do not have ultrasound semiotics of malignant growth and describing the process as a liquid or isoechoic formation.

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