Background

Although assessment of proliferative may be helpful in predicting subsequent tumor recurrence or invasiveness, there are many other important and as yet unidentified factors pituitary tumors. It is clear that further research is needed to clarify these molecular mechanisms to predict those with a potentially poor clinical outcome.

The research aim – to analyze of magnetically-resonant tomography data depending on the mechanical factor of giant pituitary adenomas.

Materials and Methods

22 adult patients with giant pituitary adenomas were under observation during period from 2015 till 2016 (men 50%, aged 48.5 years. The duration of disease varied in limits from 2 months to 25 years.

Results

Patients with endo-suprasellar growth of pituitary tumour had signs of chiasmal syndrome with bitemporal hemianopsia, initial or complete homonym hemianopsia, scotomas of and others. Such variant of pituitary tumour growth was observed in 7 cases (31.8%). 4.5% patients with retro-sellar growth of pituitary tumour observed characteristic violations caused by the height of tumour in a brainstem, that stipulate both the defeat of craniocerebral nerves and vegetative disorders, and also pyramid symptomatology (pathological reflexes, symptoms of oral automatism). Patients with the endo-laterosellar growth of tumour suffered from decline of sharpness of sight on one eye, one-sided headaches, defeat of oculomotorius. It is necessary to underline that usually greater part of acidophilic cells is located in postero-lateral part of adenohypophysis, producing growth hormone and prolactin. Part of acidophilic cells produce both growth hormone and prolactin (mammo-somatotrophic cells). Taking into account this, earliest fall of growth hormone concentration is expected to be among patients with endo-laterosellar growth of tumour of hypophysis. For 4.5% patients with the endo-infrasellar growth of direction of tumour violations of the nasal breathing and swallowing (odynophagia) are characteristic. Patients with endo-antesellar growth of tumour have violations caused by a growth in the latticed labyrinth, orbit. Such cases were not observed in our research. In patients with endo-supra-infra-retro-ante- laterosellar growth of tumour (12 cases) all aforementioned disorders, and also pyramid symptomatology, are characteristic due to motor system damage.

Conclusions

The most expressed neuroendocrine, ophthalmology and barrel disorders were observed in patients with the total variant of height. The giant pituitary adenomas are often accompanied by an invasion height in surrounding anatomic structures (69.2%), that is a basic factor, limiting radicalism of operative intervention and increasing the number of relapses.