

# **THYROID STATUS AND PROLACTIN LEVELS IN PATIENTS WITH PITUITARY ADENOMA**

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Tumors arising in the anterior pituitary are of considerable interests to neurologists because they often cause visual and other symptoms related to involvement of structures bordering upon these *cella turcica* before an endocrine disorder becomes apparent[1]. Pituitary adenoma are primary tumors that occur in the pituitary gland and are one of the most common intracranial neoplasms.

Depending on their size, they are broadly classified into:

- Pituitary micro adenoma: less than 10 mm in size;
- Pituitary macro adenoma: greater than 10 mm in size [1].

Clinical symptoms result from mass effect on surrounding structures, tumor invasion and symptoms related to elevated or reduced systemic hormone levels, tends to dominate the clinical presentation. Fifty to sixty percent of patients with macro adenomas present with visual field abnormalities due to compression of optic nerve structures. Nonspecific headache can be seen, or headache symptoms may be referred to the forehead in the distribution of cranial nerve V1. Compression of the normal pituitary can cause hypopituitarism. Invasion of the cavernous sinus may cause other visual symptoms (ophthalmoplegia, diplopia, ptosis) or facial numbness or pain. Extension into the sphenoid sinuses can cause spontaneous cerebrospinal fluid (CSF) rhinorrhoea. The endocrinologic manifestations are dependent on the specific overproduction or underproduction of a hormone or hormones associated with the tumor [2,5].

Thus, patients with pituitary adenomas may either present with symptoms related to size of tumor or symptoms of excessive hormone secretion such as Growth Hormone (GH), Prolactin, Adeno Corticotropin Hormone (ACTH), Thyroid Stimulating Hormone (TSH), Follicle Stimulating Hormone (FSH) or Luteinizing Hormone (LH). However, 20 to 30 percent of pituitary adenomas are silent and do not secrete any hormone in excess or secrete hormone sub fractions, which are biologically inactive [3].

According data [4] small, intrasellar micro adenomas may be associated with elevated prolactin (PRL) levels due to possible direct hormone production [prolactinoma] or possibly to interference with

portal vessel blood flow. In monitoring hyperprolactinaemic patients in multiple endocrine neoplasia type 1 for the development of pituitary adenomas, measurement of PRL levels is insufficient and periodic MRI scans are necessary at a more frequent interval than every 3–5 years. This may also pertain to patients with “idiopathic” hyperprolactinemia.

**Aim and purpose:** Our aim was to study the levels of prolactin, and TSH, and free Thyroxin in patients with pituitary adenoma.

**Materials and methods:** Eight cases were selected as a sample of pituitary adenoma. As a control group, eight healthy persons were examined. The examination was conducted on laboratory data (prolactin, TSH and free Thyroxin) tested by ELISA kit. Mean values, median values and standard deviations were calculated for each of the compounds in the experiment. Collected data were classified, edited, coded and entered into the computer for statistical analysis by using«STATISTICA-10». Statistical analysis included also doing correlation and frequency analysis.

**Results:** Among the 8 cases of pituitary adenoma, 4 (50%) were female; 4(50%) were male. As a control, a case- control group was used. Age range was 47-68 years with a mean age of  $57.06 \pm 8.29$  years and  $57.38 \pm 8.55$  years respectively. Normal levels of TSH, T4 free and prolactin in patients with pituitary adenoma were established ( $1.40 \pm 0.78$  mIU/ml;  $1.15 \pm 0.25$  ng/dl;  $239.74 \pm 106.25$  IU/l respectively). Dispute to the normal levels of TSH, T4 free and prolactin compare with reference levels were revealed, the comparative analysis was registered decrease the level of TSH & T4 and increase prolactin concentration in patients with pituitary adenoma compare to healthy persons levels. While decrease of thyroid status components were not significantly (by 14.6% & 8% respectively), we found a steep of prolactin to 45.7% in patients with pituitary adenoma dispute to the tumor location.

**Conclusion:** This study indicates that elevation of prolactin level can be used as early indicative marker of pituitary adenoma with complex of MRI scans. These data demands further studying.

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## **ORDINARY CUTANEOUS SYMPTOMS IN THE DIAGNOSIS OF CHRONIC VIRAL HEPATITIS B AND C**

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The skin is the leading barrier system of the body. They are closely linked to the functional activity of the liver, the main detoxifying and biochemical laboratory of the human body. The latent character of the disease or a lack of specific clinical manifestation of "hepatitis" symptoms observed in a significant proportion of patients with chronic viral hepatitis B and chronic viral hepatitis C. Along with this, there is very often, and sometimes dominates the clinical symptoms of extrahepatic localization. Cutaneous manifestations of chronic viral hepatitis B and C belong to the group of the most common and diagnostically significant extrahepatic symptoms. Thus, in patients with chronic viral hepatitis C, they are found in 54% of all cases [1]. This abstract will be considered common and clinically bright dermatological manifestations of chronic viral hepatitis B and C: skin itching, palmar and plantar erythema and telangiectasia.

Skin itching (pruritus) - very frequent clinical manifestation of liver disease, including chronic viral hepatitis. Itching of the skin is observed with a significant violation of the excretory function of hepatocytes (80%). Its nature is not completely installed. Probably the compounds that cause itching, synthesized in the liver - in favor of this indicates the disappearance of pruritus in terminal stage of liver failure. Traditionally, itching of skin associated with a delay of bile