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Tumour of great occipital foramen

The principal and early symptom of the tumour localised at the great occipital foramen are pains in occipital area of the head and neck, that intensify with head movements and changes of posture. Spasms of neck muscles and swallowing muscles appear. Stiff head keeping is a characteristic feature. Significant increase in pulse rate and vasomotor dysfunctions on the head and the neck may appear (5). Later, neurological symptoms like limbs paresis, numbness or pains affecting one or both upper limbs and finally also lower limbs, may appear. Sensory loss often has dissociated character. Moreover, paralysis of X, XI and XII cranial basis nerves, nystagmus, dysphagia and dyspnoea occur (1, 3). Neurological symptoms are connected with pressure or infiltration of nervous system. Clinical picture may differ according to the direction of tumour expansion; it may expand towards skull or towards vertebral canal.

CASE DESCRIPTION

H.Ż., a 59-year-old patient was admitted to the Department of Neurology in Lublin because of the intensification of pain in occipital area of the head. For 1.5 months the patient was suffering pains in occipital area of the head, that irradiated into parietal and frontal areas. In 1989 the patient underwent an infarct of right cerebellum hemisphere and in 1999 he had the amputation of right lower limb because of the *occlusio arteriae femoralis utrisque*. Neurological examination performed on the day of admission stated significant mobility restriction of cervical spine both to the front and to the rear as well as towards both sides, with pain existence during movement. No symptom of focal damage of central nervous system was stated. Laboratory findings disclosed a high three figures erythrocyte sedimentation rate, other biochemical findings, including prostate fraction of acid phosphatase, protein electrophoresis and immunoglobulin level, were within norm.

Performed X-ray examination of thorax and ultrasonographic examination of abdominal cavity did not disclose any pathologic alterations. No features typical of plasmocytoma, were found on radiograms of cranial and pelvic bones. X-ray examination of the cervical spine (Fig. 1) disclosed chronic discopathy features at the C5-C6-C7 level. Computed tomography test of the head revealed ischaemic area in the right cerebellum hemisphere. However, magnetic resonance imaging of the cervical spine (Fig. 2, Fig. 3) showed the existence of irregular tissue, that underwent intensification after contrast medium administration, and extended between the level of great occipital foramen and front edge of C6 vertebral body and between rear wall of the throat and the region of apical-occipital junction. Described lesion was the cause of the destruction of the dens of epistropheus, the front part of C1 arch and the occipital bone. The penetration of the lesion into the spinal canal was visible, with the possibility of the spinal cord *dura mater* infiltration while the spinal cord was significantly compressed and moulded. With regard to the features of two-sided lateral expansion, in the picture of magnetic resonance imaging test the relation of tumour to big vascular trunks was uncertain. The

examination disclosed also alterations of cervical spondylarthrosis character, lowering of C5-C6 and C6-C7 intervertebral space and protrusion of intervertebral disc at these levels.



Fig. 1



Fig. 2

Fig. 3

DISCUSSION

Examinations revealed the dispersed process of expansion of infiltrating-destructive character, localised in occipital-vertebral area, which pressed the spinal cord. On the basis of performed investigations one could neither univocally define the starting point of alteration nor state whether the process of expansion had primary or metastatic character (3, 4). The investigation made did not confirm the existence of other primary alteration of stated neoplastic process. Because of difficult approach to the process of expansion, the patient was not qualified for operational treatment by neurosurgeons, orthopaedists as well as laryngologists (2, 6). A stiffen collar was applied in order to diminish patient's painful distempers.

CONCLUSIONS

1. The pains in occipital area of the head and in the upper part of the cervical spine are most often initial symptoms of the tumour of great occipital foramen.

2. The magnetic resonance imaging of cranial-vertebral junction is the most useful imaging examination of the tumour of great occipital foramen.

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SUMMARY

We present the case of tumour of the great occipital foramen in a patient who was having headaches and significant mobility restriction of the cervical spine. Attention is called to diagnostic and surgical difficulties related to this location of neoplasm.

Guz otworu potylicznego wielkiego

Przedstawiono przypadek guza otworu potylicznego wielkiego u pacjenta z bólami głowy i znacznym ograniczeniem ruchomości kręgosłupa szyjnego. Zwrócono uwagę na trudności diagnostyczne i operacyjne związane z tą lokalizacją guza.