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The Role of Posttraumatic Intracranial Cysts in the Pathogeny of Late Epileptic Seizures as Exemplified by Two Patients

Rola pourazowych cyst wewnątrzczaszkowych w patogenezie późnych napadów padaczkowych na przykładzie dwu pacjentów

Intracranial cysts are most often found in the lateral sulcus between the cerebral hemispheres and at the midline in the posterior cranial cavity. Covered with the clear or turbid arachnoidea, they are filled with a clear, colorless or slightly yellow cerebrospinal fluid, sometimes they have a considerable size and tend to be an unexpected discovery during an operation for symptoms of a brain tumor. The symptoms depend on the cyst's location and size. These are: headaches, epileptic seizures, sometimes deficiency signs. Located in the posterior cranial cavity they can imitate a cerebellar tumor (1, 3, 5). Intracranial cysts can be a result of abnormal ontogenesis or sometimes following a head injury (2).

Since there is little information in literature on the incidence of posttraumatic intracranial cysts and their clinical picture, we find it desirable to present patients treated at Neurology Clinic of the Medical Academy in Lublin. All patients underwent a neuropsychological examination.

CASE DESCRIPTIONS

A patient K. A., aged 18, admitted to Neurology Clinic on 12 October 1987 because of headaches and vertigo. In May 1987 the patient suffered a head injury without losing consciousness. On admittance to the clinic, a neurological examination did not report deviations from the norm. A tomographic examination of the head revealed a hypodensive focus in the right frontoparietal region that might correspond to a subarachnoid cyst. The patient was again admitted to Neurology Clinic on 24 August 1989 because his earlier reported complaints intensified. Along with headaches and vertigo, there were temporal epileptic seizures. A neurological examination for deviations from the norm reported diminished superficial sensation in left limbs. His EEG record was correct. A tomographic examination of the head did not differ

from the previous one. An ophthalmological examination revealed a disturbance in the visual field next to the nose. Psychological examinations were conducted twice in the interval of 2 years, which permitted a comparison of the patient's psychological condition. The first examination did not reveal any focal disorders. The second examination with psychoorganic tests revealed focal symptoms in cognitive functions. Difficulties in dynamic praxis and in position praxis as well as difficulties in reproducing motor automatisms were found. A neuropsychological examination confirmed intensification of neurodynamic symptoms and the occurrence of behavior and sensations that can be counted as psychosensory disorders. The patient was released with a diagnosis of a post-traumatic subarachnoid cyst in the left parietotemporal region and posttraumatic temporal lobe parietotemporal region and posttraumatic temporal lobe epilepsy.

A patient P. A., aged 23, admitted to Neurology Clinic because of generalized epilepsy seizure that occurred twice. The interview revealed that at the age of 8 the patient suffered a head injury with a subsequent loss of consciousness. A neurological examination did not report deviations from the norm. His EEG record was correct. A tomographic examination of the head revealed a hypodense area in the posterior cranial cavity adjacent to the occiput, corresponding to a subarachnoid cyst. The results of psychological tests indicate an organic injury of the brain. No disorders were found that are typical of the injury of the posterior brain area apart from mnemonic difficulties and emotional difficulties manifested as a recurring neurotic depression. Observation of the patient's behavior indicated heightened fatigability and irritability. The patient was released home with a diagnosis of a subarachnoid cyst in the posterior cranial cavity and generalized epileptic maximum seizures.

In the presented patients the connection between the presence of intracranial cysts and epileptic seizures is clinically obvious at least on account of the fact that morphology of the seizures turned out to depend on the location of cysts. Injuries that are the cause of subarachnoid cyst formation can have varying strengths and the time interval between the suffering of an injury and a posttraumatic epileptic seizure is of varying length, even a dozen-odd years. Our findings demonstrate that while looking for causes of epileptic seizures it is useful to take into consideration the possibility of a connection of epileptic seizures with the presence of posttraumatic subarachnoid cysts.

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STRESZCZENIE

Badania przeprowadzono u 2 pacjentów hospitalizowanych w klinice w związku z występowaniem późnych napadów padaczkowych różnego typu. Na podstawie wywiadu i wyniku badania TK głowy przyjęto, że istnieje związek między występującymi napadami padaczkowymi a obecnością wewnątrzczaszkowych cyst podpajęczynówkowych pochodzenia urazowego.

