

DIAGNOSTICAL VALUE OF SOME CEREBROVASCULAR PHENOMENA OF CORPUS CALLOSUM NEOPLASMS

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The tumours of the callous corpus (CC) are demonstrated with a mixed symptomatology which can imitate a number of other brain diseases. This fact makes their diagnosis very difficult, indeed. The first cases with CC tumours are reported in 1675 by Vepfer and in 1770 — by Morgagni (cited after 4). Many authors (1—3, 5—10) ascertain the psychoneurological symptomatology which dominates in the clinical picture and point out the diagnostic difficulties in these cases.

Material and methods

The purpose of the present work was to diagnose the CC neoplasms according as well to the course of focal neurologic symptoms as to certain circulatory cerebral phenomena which are established by using the angiography (A) and rheoencephalography ((REG).

We have investigated 5 patients with bilateral fronto-callous localization of a multiform glioblastoma.

Results and discussion

Clinically, the psychic alteration predominated accompanied by moderately expressed hypertensive manifestations and uni- and bilateral pyramidal signs. The carotid A shew an archlike dislocation of the anterior cerebral artery and lowering of the middle cerebral artery. A well-outlined pathological fronto-parasagittal vascular net was found out in 3 patients. The global fronto-mastoidal REG-lead shew a slightly expressed hemispheric asymmetry with amplitude difference of 0,09 and 0,1 Ω . The asymmetry coefficient reflecting the blood supply difference was equal to 13,8 per cent. A slight increase of blood-encephalic index was established at regional frontal REG-leads in 4 patients on the background of lowered haemodynamics.

The following case illustrates our observations: D. R. G., age 44, c. r. Nr. 10348/1071, with bifronto-callous localization of multiple glioblastoma. The illness begins with headache localized in the fronto-temporal region. Neurologically a slightly expressed bilateral exophthalm and very small right hyperreflexy is established. The eye papillae are slightly oedematous. The EEG recording demonstrated a slow-wave focus fronto-parietally to the left. The left carotid arteriography shows that A₂, A₃ is archlikely dislocated to the left and A₄, A₅ returns on the sagittal line. The middle cerebral artery is lowered on the side-projection. There is a pathological parasagittal vascular net equally remote from both skull cap and basis. The global FM REG-lead shows a moderately expressed hemispheric asymmetry. The pulse-curve amplitude is 0,09 Ω to the left and 0,11 Ω to the

right. The asymmetry coefficient is equal to 22,2 per cent. The regional FF REG-lead shows an increase of the pulse-wave amplitude a 0,11 Ω higher.

At regional PT REG-lead the bilateral pulse deficit is equal to 0,07 Ω respectively to 0,08 Ω . There is a bilateral increase of the vascular tone which prevails slightly to the right. The dislocation changes of anterior and middle cerebral arteries, the pathological frontoparasagittal vascular net and the slightly increased pulse-wave index in the anterior lobes correspond to the expansive bifronto-callous located process on the background of total lowering of cerebral haemodynamics and vascular tone changes.

We can conclude that the separately established A and REG changes are not characteristic for CC tumours because of their often appearance in case of unilateral focal brain lesion. The dislocation of the anterior cerebral artery and the pathological frontoparasagittal vascular net in correlation with the increased blood supply in anterior lobes as contrasted with the total cerebral blood deficit leads us to diagnose an expansive process with bifronto-callous localization.

REFERENCES

1. Шиманский, В. К. *Ж. невропатол. и психиатр.*, 59, 1959, 105. — 2. Brihaue, I., A. Bulisau. *Schweiz. Arch. Neurol. Psychiatr.*, 77, 1956, 381. — 3. Colmat, H., W. Brote. *Schweiz. Arch. Neurol. Psychiatr.*, 84, 1959, 47. — 4. Iroside, K., M. Buttmacher. *Brain*, 52, 1929, 442. — 5. Schlessinger, B. *J. Neurosurg.*, 7, 1950, 375. — 6. Sercl, M. *Neurol. Psychiatr. Cesk.*, 11, 1948, 177. — 7. Eldenvik, O. K., O. T. Gabrielsen. *Acta Radiol.*, Ser. Diagnost., (Oslo) 16 Suppl., 1975, 347. — 8. Takohacli, S., M. Sonobe, I. Nagamine. *Neurol. Surg.*, 81, 1980, 475. — 9. Tammouresie, A., C. Kroll, W. Scucart. *Surg. Neurol.*, 11, 1979, 31.

ДИАГНОСТИЧЕСКАЯ ЦЕННОСТЬ НЕКОТОРЫХ ЦЕРЕБРОВАСКУЛЯРНЫХ ФЕНОМЕНОВ ОПУХОЛЕЙ МАЗОЛИСТОГО ТЕЛА

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РЕЗЮМЕ

Авторами рассматривается 5 случаев с опухолями мазолистого тела. На основании данных АГ и РЭГ делается вывод, что смещение передней мозговой артерии и парасагиттально-фронтальной патологической васкулярной сети в корреляции с небольшим увеличением пульсового наполнения в передних отделах мозга на фоне тотального мозгового кровяного дефицита можно считать надежным феноменом при диагностике опухолей с бифронтомазолистой локализацией.