ABSTRACTS

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SHORT COURSE 10

PATHOLOGY OF THE TUMORS OF THE NERVOUS SYSTEM

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September 10, *Tuesday* *Univ. Room* 111 9.00-12.00

CASES 1 and 2 - (Institute of Pathology, Bilbao) R.P., male. 3 yr.

Clinical history - Three years old boy with an abdominal tumor of progressive growth during two months. Big mass at the left kidney region. Anemia (3.000.000 red blood cells). Eosinophilia (10 %) B.S.R. 36/66. After one week, 4.000.000 red blood cells and 2 % eosinophils.

Urography - Big tumor displacing considerably the left kidney

Treatment: Cobalttherapy (2.000 r.) and subsequently Genoxal before surgical operation.

Operative findings - Large tumor including the upper pole of the left kidney, with many enlarged lymph glands.

Clinical diagnosis: Wilm's tumor.

CASE 3 - (Max-Planck-Institute, Köln) D.H., male. 9 yr.

Clinical history - Since three and a half weeks ago, strong headaches, and something later vomiting without relation to food ingestion, with rapid loss of weight. He leaved the school because of the headaches. Four days ago, admittance into the Medical Clinic.

Clinical diagnosis - Tumor of the posterior fossa. The patient was transferred to the neurosurgical clinic for further study of the case and surgical intervention, if indicated.

Surgical macroscopic diagnosis - Growth of about 5 cm. of diameter, situated in the fourth ventricle, and apparently implantated on its roof and in the cerebellar vermis, extending itself backward to the cerebellar tonsil, considerably enlarged and compressed into the foramen magnum. This compression was doubtless the cause of the forced head position to the left, as an effort of the little patient to improve the tonsil impression.

A sure, macroscopic, differential diagnosis is not possible. The very short clinical history suggests a medulloblastoma. The macroscopic appearance corresponds to an ependymoma.

CASE 4 - (Max-Planck-Institute, Köln) H.M., male. 31 yr.

Clinical history - Ten months ago, dizziness with spontaneous recovery. Five months ago, clinical treatment because of hypertension and headaches. Two months ago, visual disturbances with blurred vision. Ophthalmoscopic examination: papillar stasis.

Radiologic diagnosis - Ventriculography: suspicion of tumor of cerebellar vermis.

Macroscopic surgical diagnosis - Tumor of orange size, with many vessels covering the surface, situated at the romboid fossa, at the region of the calamus scriptorius. Some papillar figures were seen after a through examination. A complete exicision of the tumor was impossible at the zone of the medulla oblongata.

Clinical diagnosis - Chorioid plexus papilloma.

CASE 5 - (Institute of Pathology, Bilbao) J.L.M., male. 2 yr.

Clinical history - Two months ago, a white reflex was observed at the right iris, confirmed on ophthalmoscopic examination, which discovers a white, roud bulk at the temporal periphery, with plently of exudate in the vitreus. Ocular pressure is 18,5 mm Hg. in both eyes (normal). The left eye is quite normal.

Clinical diagnosis - Retinoblastoma.

CASE 6 - (Max-Planck Institute, Köln) E.G., female. 25 yr.

Clinical history - Generalized cerebral cramps attacks, first with loss of consciousness, afterwards without. Headaches and hemilateral manifestations.

Radiologic diagnosis - Angiography suggests a left fronto-temporal tumor.

Surgical findings - Left fronto-temporal tumor which overrides the cisura sylviana including completely the group of the a. cerebri media. Cyst in the frontal part of the tumor, which shows otherwise a rubbery consistence and lack of vessels. It was tried to excise the whole tumor in both areas, preserving the group of the a. cerebri media.

Surgical macroscopic diagnosis - Left fronto-temporal astrocytoma.

CASE 7 (Max-Planck Institute, Köln) W. J., male. 28 yr.

Clinical history - Since four months ago, headaches accompanied by nauseas and vomiting. Admission into the Neurosurgery six days ago. One day later, apathic, somnolent condition, which turned soon to a deep loss of consciousness, which could not be improved in any way by dehydratant therapy.

Arteriography - Signs of a tumor in the left frontal lobe, with fine, pathologic, tumor vessels in a round zone of 5 cm. diameter. (A scintilogramm previously performed had given a positive result in this region).

In order to evacuate a fluid content of a possible cystic tumor and to produce in that way a cerebral decompression, an intratumoral puncture was performed three days after admission. The drill came into a cystic cavity, whose evacuation conditioned the sudden awakening of the patient.

This clearance of consciousness continued during three days, and at that time a surgical intervention was performed.

Surgical macroscopic diagnosis - Growth about 7 cm. in diameter, rather poorly vascularized, which infiltrates widely the left frontal lobe.

CASE 8 (Institute of Pathology, Bilbao) V.C., male. 37 yr.

Clinical history - After one year, focal crises of the right limbs with subsequent progressive right hemiparesis, of crural predominance, accompanied by subjective impairment of sensibility on this side. Lately headaches. No family nor personal antecedents.

Exploration - Right spastic hemiparesis with crural predominance and sensibility disturbances, manifested by a right hemi-hypo-algesia. No signs of endocranial hypertension.

Angiografic diagnosis - Downward deviation of the peri-callosal artery in the parietal region. No filling of temporal vessels.

Clinical diagnosis - Left parietal tumor.

Surgical macroscopic diagnosis - Tumor of the upper area of the left parietal lobe. Glioma, possible oliogodendroglioma.

CASE 9 - (Max-Planck Institute, Köln) F.W., female. 48 yr.

Clinical history - Headaches since 3-4 years. Nine months ago, attacks of parestesia of the left hand. Fourteen days before admission to the clinic, appearance of weakness at the left hand, and eight days afterwards of the left leg, too. Neurologic findings: left spastic hemiparesis.

Clinical diagnosis - Right parietal, well-vascularized, probably malignant tumor.

Surgical macroscopic diagnosis - Glioblastoma multiforme.

Localization at the operation - White substance of the right parietal lobe.

Arteriographic diagnosis - Pattern of peripheric vascular flow, about the size of a prune, with slight stasis of the regional vessels, at the right parietal zone. One sees only significant marginal opacifications. A sure precocious venous pattern is not demonstrable.

CASE 10 - (Institute of Pathology, Bilbao) J-M. L., male. 61 yr.

Clinical history - Craneal trauma, four years ago. Since six months, headaches, night mares, hyperhydrosis, nervosity. Three months ago, one convulsive attack, with loss of consciousness, month foam, and involuntary micturition. Since two weeks, headache with occipital predominancy, loss of equilibrium, restlessness, delirium, confusion, amnesia, hyperbulia, rigidity, stereotypias, clonus, Babinski (+), tremor.

Evolution: Progressive impairment of the patient's condition and exitus.

Clinical diagnosis - Astroglioma multiforme.

Case 11 (Institute of Pathology, Bilbao) M-C. M., female. 5 yr.

Clinical history - Eighteen days before admittance to the clinic, otalgia and convergent strabismus of the right eye. Two days later, vomiting and pain on the right side of the neck. Eight days later, diplopia and urinary disturbances. From the very beginning staggering gait.

Family and personal histories without interest. Exploratory findings: convergent strabismus of the right eye. Right facial paresia. Ataxic walking. Neck stiffness. Bilateral Babinski. Slight right disdiadocokinesia.

Clinical diagnosis - Syndrome of endocraneal hypertension produced by a tumor of the posterior fossa.

Radiological diagnosis - Diasquisis of the sutures.

Evolution - Exploratory craniotomy. Death within the postoperative course.

Surgical macroscopic diagnosis - Tumor of the Brain Stem.

CASE 12 - (Institute of Pathology, Bilbao) J-M. P., male. 3 yr.

Clinical history - One year and a half before admittance, start

of predominantly right visual disturbances. Diagnosis of primary optic trophy. After eight months, progressive right paresia. Posteriorly, headaches and loss of vision in both eyes. No personal nor familial antecedents of interest.

Exploratory findings: Bilateral amaurosis with primary optic atrophy in both eye grounds. Right spastic hemiparesia, without sensibility disturbances.

Conventional radiologic diagnosis - Diasquisis of sutures. Wide erosions around the optic foramina, and of the anterior and posterior clinoid processes of the sella turcica.

Ventriculographic diagnosis - Symmetrical hydrocephalus internus, with upward deviation of the anterior part of the third ventricle.

Surgical macroscopic diagnosis - Tumor of the chiasma opticum extending to both optic nerves and radicals.

CASE 13 (Institute of Pathology, Bilbao) M-C. De. female. 12. yr.

Clinical history - Vomiting since a year ago, intensified during last four days, accompanied with headaches. Right eye deviation. Difficulty in speach articulation. Stuporous condition. Slight temperature (0,3° - 0,4 °C).

Slight nech stiffness. Babinski (+). Normal eyeground. Lazy patellar reflexes.

Urine examination: No glucose, no acetone, no albumine. Hemorrhagic CRL.

Impairment of general condition. Blood pressure, 12/7 - 14/8. In the final period, anisocoria with left midriasis and right miosis.

Clinical diagnosis - Cerebral hemorrhage? Tumor?.

CASE 14 (Max-Planck Institute, Köln) W.S. female. 42 yr.

Clinical history - Three years ago, deafness of the right ear with inability to hear through the phone, and sometime later, absolute deafness. Since that time, dizziness, vomiting and instability, with a diagnosis of hepatic or intestinal disease with corresponding treatment. After the ophthalmoscopic diagnosis of bilateral stasis papillae with more than 5 diopters, the patient was transferred to the Neurologic Department, under suspicion of brain tumor. An arteriography of the carotid and vertebralis was performed, with extravasation of the most part of the contrast fluid and serious worsening of the

patient's condition; recovery after two days, but patient lies somnolent and apathic, with an almost unintelligible speech.

Surgical macroscopic diagnosis - Acoustic neurinoma of the right side.

CASE 15 - (Institute of Pathology, Bilbao) M-T. R., female. 53 yr.

Clinical history - Since eight years, slowly progressive chiasmatic syndrome, and, in the last two years, endocraneal hypertension. At the beginning of this condition, an operation was adviced and not accepted by the patient. At the moment of the actual examination, the endocraneal hypertension is considerable and the patient lies in coma.

Radiologic diagnosis - Enlargement of the sella turcica with erosion of the clinoid processes.

Clinical diagnosis - Tumor of the suprasellar region.

Angiographic diagnosis - The same.

Surgical macroscopic diagnosis - Meningioma of the tuberculum sellae.

CASE 16 - (Institute of Pathology, Bilbao) J.Z., male. 39 yr.

Clinical history - Started eleven years ago, with recurrent focal Jacksonian epileptic crisis of the right leg, which later included the arm. After six years, convulsive epileptic crisis, which leaves a right hemiplegia, headaches and a stuporous condition.

No other antecedents. Exploratory findings: Right flaccid hemiplegia with slight stuporous condition. No stasis papillae.

Clinical Diagnosis - Tumor of the left centro-parietal area.

Angiographic diagnosis - Downward deviation of the a. pericallosa, slight filling of tumor vessels. No arterio-venous fistules.

Surgical macroscopic diagnosis - Well circumscribed tumor of the high fronto-parietal area, with necrotic-hemorrhagic appearances inside.

Pathology - Initially diagnosed as a beningn ganglioglioma, later as an astrocytoma, and finally as a glioblastoma multiforme.

Satisfactory evolution during five years. After this time progressive focal crisis with appearance of an exocraneal tumor, and appearance of a progressive hemiparesia.

Clinical diagnosis - Glioma recurrent with invasion of brain covers.

Surgical macroscopic diagnosis - Parasagittal tumor, attached to the dura invasive to the brain to the skull and to the epicraneum. Possible malignant meningioma.

CASES 17 and 18 - (Institute of Pathology, Bilbao) A.U., female. 38 yr.

Clinical history - Admittance through the Casualty Department. Since six days ago, headaches and anorexia. She says, she had loss of vision that morning for a while.

Casualty diagnosis - Histerism? Under observation.

At the Medical Unit, it was impossible to perform an anamnesis because of the psychic condition of the patient. She complained of headaches and manifested agitation, disorientation in time and space, delirant appearance and hallucinations. Alcoholic antecedents.

Starved, agitated patient, who does not answer to the questions. Head: No pain on percussion. Isocoric, normo-reactive pupillae, conjunctivae somewhat pale. Septic mouth. Without other findings. Blood pressure oscillating between 10/7 and 21/14. Pulse frequency between 90 - 100. Temperature 37,3 °C. Blood and urine examinations, normal.

Diagnosis of the medical unit - Acute Psycosis. Pneumonia. Tuberculous meningitis.

Psychiatric examination - Poor physical condition. Probable organic cerebral cause (Intoxication, brain edema). Abnormal personality with a psycho-genetic reaction, where alcohol plays an important role.

Psychiatric diagnosis - Psyco-genetic reaction with possible impairment through alcohol abuse, on a probable organic cerebral basis.

CASE ER - (Max-Planck Institute, Köln) M.K., female. 53 yr.

Clinical history - Progressive history of endocraneal hypertension with a left cerebellar syndrome. Besides, transistory attacks of incomplete homonime right hemianopsia, which suggest compression of the left occipital lobe adjacent to the left cerebellar hemisphere.

Clinical diagnosis - Tumor of the upper part of the left cerebellar hemisphere.

Surgical macroscopic diagnosis - Cystic tumor of the left cerebellar hemisphere.

CASE 20 - (Institute of Pathology, Bilbao) G.S., male. 17 yr.

Clinical history - One year ago, noted a painless progressively growing at the right cervical area, over the sterno-cleio-mastoid muscle. Surgical exeresis, apparently complete. Pathologic diagnosis: Reticulum-cell-sarcoma. Radiotherapy administered. After four months, progressive local recurrence. Excision biopsy performed.

CASE 21 - (Institute of Pathology, Bilbao) J.B., male. 54 yr.

Clinical history - Eight months ago, visual disturbances with left predominance. Progressive visual impairment in form of bitemporal hemianopsia.

On inspection, hypopituitaric aspect, bitemporal hemianopsia, with predominance in the right eye and pallor in both pupillae.

Conventional radiologic diagnosis - Erosion of the sella turcica with disappearance of the posterior clinoid processes.

Clinical diagnosis - Tumor of the sellar region. Probable cromophobe adenoma.

Pneumoencephalographic diagnosis - Up-and backward deviation of the suprachiasmatic cistern.

Surgical macroscopic diagnosis - Adenoma of the sellar region.

CASE 22 - (Institute of Pathology, Bilbao) C.G., male 62 yr.

Clinical history - Four months ago, frontal headaches, postural dizziness, nausea and vomiting. Posteriorly, permanent instability on walking. In the last month, development of a syndrome of endocraneal hypertension with stasis papillae. No personal nor familial antecedent of interest.

Exploratory findings - Syndrome of endocraneal hypertension, bradipsychia, and complex parkinsonian appearances with astasia-abasia.

Clinical diagnosis - Endocraneal hypertension following deep tumor or cerebellar metastase.

Angiografic diagnosis - (left carotid a.) Slight hydrocephalic curve of the a. cerebri anterior.

A ventriculography was planned, but patient died suddenly of respiratory arrest.

CASE 23 - (Institute of Pathology, Bilbao) J.G., male. 53 yr.

Clinical history - Twelve years ago, resection of an hyperne-

phroma of the right side. Appearances of very slowly progressive right hypacusia with phonesis on both sides. One year before examination, nauseas with occasional vomiting, dizziness and occasional instability in walking. Posteriorly, occasional headaches.

Neurologic examination - No signs of endocraneal hypertension. Slight vestibular disturbances, with bilateral cochlear hypofunction.

He is examined after seven months, with impairment of the neurologic appearances, disturbances in walking and beginning of stasis papillae, accompanied by diplopia, without other focal symptoms.

Clinical diagnosis - Possible cerebellar metastase of an hypernephroma.

Ventriculographic diagnosis - Hydrocephalus internus with aqueduct block in the upper third.

Surgical macroscopic diagnosis - Metastatic tumor of the upper-medial area of the left cerebellar hemisphere.

CASE 24 - (Max-Planck Institute, Köln) Experimental Tumor.
Rat child. Dwarfism.

Experimental data

Rat mother with 1 x 75 mg/kg of 1 Phenyl - 3,3 dimethyltriazene short before delivery. Death after 277 days.

Cause of death - Brain tumor.

P.M. Appearance - Blind born, underdevelopped animal. No palatine fissure and no malformations of the legs. Swollen brain with bluish spot on the right hemisphere. Cut surface: grey growth about the size of a lentil. Bilateral hydrocephaly.

CASE 25 - (Institute of Pathology, Bilbao) M.V., male. 6 yr.

Clinical history - One year ago, fever, anorexia and sweating. Diagnosis of pulmonary tuberculosis, with sanatorial treatment during six months. Two months after release, strong headaches, vomiting, and fever, and two months later, intentional tremor in the right limbs and ataxia on walking.

Exploratory findings - Endocraneal hypertension with macrocephaly, bilateral papillar stasis and focal cerebellar appearances at the right side. With disdiadokinesia, dismetrism, hypotonism and ataxic gait, with right lateropulsion.

Chest examination - Bilateral gangliobronchial tuberculosis, with a seeding of fine hematogenous-looking granulations.

No response to antituberculous chemotherapy. 16.000 Leukocytes. Slight anemia. B.S.R. 25/58.

Radiologic Diagnosis - Diasquisis of craneal sutures.

Electroencephalografic diagnosis - Diffuse cerebral dismetabolism.

Ventriculographic diagnosis - Asymmetrical ventricular enlargement, more developed at the right ventricle, with deviation of the whole ventricular system to the right side and of the left frontal horn back and downward.

Surgical diagnosis - Big tumor including the whole frontal lobe, with cortical exteriorization at the pole of the lobe, and strong adhesions to the duramater. Multilobulated surface and woody consistence. It was necessary to divide the tumor for extirpation, discovering a caseous substance inside. Total extirpation.