CALIFORNIA TUMOR TISSUE REGISTRY

LOS ANGELES COUNTY - UNIVERSITY OF SOUTHERN CALIFORNIA MEDICAL CENTER

PROTOCOL For

MONTHLY STUDY SLIDES

JUNE 1974

TUMORS OF THE CENTRAL NERVOUS SYSTEM

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NAME: M. K.

AGE: 54 SEX: Male RACE: Unknown

CONTRIBUTOR: Robert L. Berggren, M.D.
St. Joseph Hospital Orange,
California

TISSUE FROM: Brain (left temporal lobe)

CLINICAL ABSTRACT: This 54 year old male presented with left frontal headache and speech difficulty of two weeks' duration. He had one episode of olfactory hallucination associated with marked pallor and sweating.

Neurologic Examination: The patient displayed moderate dysnomia and dyspraxia. There was slight right facial paralysis and slight clumsiness of the right hand.

Radiographs: A brain scan revealed an area of increased uptake in the left anterior temporal area.

SURGERY: (April 27, 1973)

At craniotomy a moderately vascular, well circumscribed lesion was found in the left temporal lobe. It was not attached to the cerebral substance and only loosely attached to the dura at the lesser sphenoid rim.

GROSS PATHOLOGY:

The specimen consisted of two irregular soft tan-white fragments of tissue, the larger measuring 2.0 x 1.2 x 0.5 cm.

FOLLOW-UP:

After the patient recovered from surgery he was given a course of chemotherapy (BCNU). The only further information available is that he died on March 26, 1974.
NAME: H. B.  JUNE 1974 ~ CASE NO. 2
AGE: 54  SEX: Male  RACE: Caucasian  ACCESSION NO. 18233

CONTRIBUTOR: E. R. Jennings, M.D.
Memorial Hospital of Long Beach Long Beach, California

TISSUE FROM: Frontal lobe of brain

CLINICAL ABSTRACT:
This 54 year old Caucasian male presented with difficulty breathing. A chest radiograph revealed a right hydrothorax and a cavitary lesion in the apex of the right lung. One week later he developed speech difficulty, poor memory, disorientation, weakness of the right arm, shuffling gait and a tendency to fall to one side. The patient smoked three to four packs of cigarettes per day.

Radiographs: A brain scan indicated a tumor in the left frontal lobe.

SURGERY: (October 2, 1969)
At craniotomy the tumor was an isolated, well circumscribed, centrally cystic lesion within the brain substance. It did not appear to be related to the meninges or the ventricular surface.

GROSS PATHOLOGY:
The specimen consisted of a 4 x 3.3 x 0.8 cm, portion of yellow-grey to pink-gray tissue which appeared to be forming the wall of a cyst. The lining was smooth, glistening and contained a few papillary areas.
This 17 year old Caucasian male became aware of a mass over the sacral area two months prior to admission. The tumor slowly increased in size.

Physical Examination: The mass was easily movable and was not attached to the underlying bone.

SURGERY: (March 21, 1967)
The lesion was excised.

GROSS PATHOLOGY:
The specimen consisted of an ovoid, fleshy segment of tissue which measured 3.8 x 2.8 x 1.9 cm. The outer surface was covered by a thin, filamentous membrane. Upon bisection, the tumor had a firm capsule which measured 0.1 cm in thickness. The cut surface was lobulated, gray to fleshy pink and smooth with focal areas of hemorrhage.

FOLLOW-UP:
As of May 1974, the patient is fully active and free from disease.
NAME: E. M.         JUNE 1974 - CASE NO. 4  
AGE: 17 SEX: Female    RACE: Caucasian  
ACCESSION NO. 11327  
OUTSIDE NO. 60-16306  

CONTRIBUTOR: W. K. Bullock, M.D, LAC-USC Medical Center Los Angeles, California

TISSUE FROM: Left cerebral hemisphere

CLINICAL ABSTRACT:

The patient was apparently well until 12 years of age when she developed focal seizures on the right side of her face. One year later she had major seizures and at age 15 she apparently suffered a “2 week coma”. A workup which included a ventriculogram was equivocal. Her seizures were medically controlled for approximately 2 years but she then developed headaches and vomiting which necessitated readmission to the hospital.

A sister had a fundic hemangioma in one eye and was thought to have Von Hippel-Landau disease.

Physical Examination: The patient was slightly lethargic but oriented. She had bilateral papilledema but no hemangiomas. There was slight right lower facial weakness.

A lumber puncture was performed and had an opening pressure of 300-350 MM H20. The fluid was xanthochromic.

SURGERY: (December 10, 1960)

A craniotomy was performed and a vascular tumor removed from the left cerebral hemisphere at about the junction where the temporal, frontal and parietal lobes meet.

GROSS PATHOLOGY:

The tumor measured 4.2 x 3.5 x 2.2 cm. and consisted of smooth, glistening, grayish tan tissue which contained blood.

COURSE:

The patient recovered from surgery and was discharged on phenobarbital and Dilantin. She is being seen annually and takes medication for occasional seizures.
This 59 year old Caucasian female presented with a two month history of personality changes, severe headaches, dizziness and nausea. Radiographs: A skull series was reported as normal. A bilateral carotid angiogram revealed a large mass in the posterior portion of the right temporal lobe.

At craniotomy a rather hard, fairly well circumscribed tumor was found in the substance of the right temporal lobe, 0.8 cm, deep to the cortical surface. It was easily shelled out, except for one deep area where there seemed to be extra capsular infiltration.

The specimen consisted of an oval shaped well circumscribed segment of pale yellow tissue which measured 4.8 x 3.8 cm.

She was discharged from the hospital on October 22, 1967, and was readmitted on January 13, 1968 because of recurrent brain tumor. A right temporal lobectomy was performed and she was discharged 2 weeks later. She was then re-admitted on July 26, 1968 with left arm and leg paralysis, and disorientation. She expired 2 months later of residual brain tumor. An autopsy was not performed.
This 84 year old Caucasian female collapsed and died at home with no previous history of any symptoms.

GROSS PATHOLOGY (AUTOPSY):

The brain weighed 1400 grams and was markedly edematous. A 4 x 3 x 3 cm. gray-white tumor with many cystic spaces, measuring up to 0.3 cm., was present in the region of the septum pellucidum. The mass bulged into both lateral ventricles. No tumor was found in the thorax or abdomen.
This 51 year old Caucasian female presented with a two month history of obtundation and confusion. During the past year she had been having blurred vision, dizziness and headaches of increasing severity.

Physical Examination: The fundi revealed 4+ papilledema with markedly altered discs. There was also mild weakness of the right seventh cranial nerve as well as questionable impairment of upward gaze.

Radiographs: A brain scan revealed an area of increased uptake in the pituitary region. A pneumoencephalogram revealed that the floor and anterior portion of the third ventricle were obliterated, and the remainder of the ventricle showed a left to right shift. A left carotid angiogram revealed a 5 x 5 cm. mass involving the basal ganglia on the left side, as well as the suprasellar and intrasellar regions.

SURGERY: (February 25, 1970)

At craniotomy 50 to 60 cc of tumor was removed from the left-sided, ill-defined, diffusely infiltrative growth which extended across the midline.

GROSS PATHOLOGY:

The fragments were gray, moderately vascular and hard with focal areas of calcification.

FOLLOW-UP:

The patient died four days following surgery. A post-mortem examination revealed residual brain tumor measuring 10 x 5 x 4 cm. in the left frontal lobe and extending into the region of the septal nuclei and basal ganglia. A Schwannoma of a spinal cord root was an incidental finding.
NAME: M. B.  
AGE: 23  
SEX: Male  
RACE: Unknown  
CONTRIBUTOR: Frank J. Glassy, M.D.  
Sutter General Hospital Sacramento, California  
TISSUE FROM: Suboccipital tumor from the 4th ventricle  

CLINICAL ABSTRACT:

This patient had dizziness for seven months. He then developed vomiting which occurred suddenly and then headaches. He next developed double vision. He was a straight “A” student in college and worked by driving a courtesy car for a hotel. Two years previously he had a severe automobile accident but sustained no apparent permanent injury.

On physical examination he was alert and oriented. A cranial nerve examination was normal, and there were no pathological reflexes.

Laboratory: A pneumoencephalogram revealed a midline mass directly posterior to the 4th ventricle displacing the ventricle anteriorly and superiorly.

The arteriogram was abnormal and the brain scan normal.

SURGERY: (May 1970)

A 4-5 cm. mass was removed from the 4th ventricle.

GROSS PATHOLOGY: The specimen consisted of 17 grams of multiple irregular roughened, slightly granular tissue fragments. On section, the tissue was modestly firm, homogeneous, whitish-yellow and fleshy.

FOLLOW-UP: (June 24, 1970)

He recovered from surgery and was given radiation therapy. He has had emotional problems and frequent nausea and vomiting.
This 31 year old Caucasian male presented with a single generalized seizure which occurred during the night. Physical and neurologic examination failed to reveal any abnormalities.

Radiographs: Carotid angiograms and a brain scan both revealed a large mass in the left frontal area.

SURGERY: (March 26, 1973)

At craniotomy the tumor was gray and had the consistency of jelly. A cyst which was filled with yellowish fluid and measured 2.5 cm. in diameter was also encountered.

GROSS PATHOLOGY:

The specimen consisted of multiple fragments of red-gray tissue which measured in aggregate 6 x 4 x 1.5 cm.

FOLLOW-UP:

Approximately one month later, additional surgery was performed because of recurrent hemorrhage. More tumor was removed. The patient then received 6120 rads to the frontal lobe area over a 2 month period. The patient is now alive, working full time and is free from disease.
NAME: S. W.                                    JUNE 1974 - CASE NO. 10
AGE: 8      SEX: Male      RACE: Caucasian      ACCESSION NO. 11556
CONTRIBUTOR: D. Gordon Johnston, M.D.        OUTSIDE NO. 61-S-732
       St. John's Hospital Oxnard,
       California

TISSUE FROM: Cerebellum

CLINICAL ABSTRACT:

This 8 year old Caucasian boy presented with a three month history of increasing nausea and vomiting. In April 1961, following two upper G. I. series, an operation for pyloric stenosis was performed. In the weeks following this surgery the vomiting again became continuous and there was an 18 lb. weight loss. A neurologist was consulted.

Neurologic Examination: The patient walked with a wide and irregular gait. On walking heel to toe, the patient had a tendency to fall to the right. A slight left facial weakness was also found.

SURGERY: (May 10, 1961)

At craniotomy a bulging tumor involving the left lobe of the cerebellum and extending into the midline was encountered. It was not possible to remove the entire lesion.

GROSS PATHOLOGY:

The specimen consisted of several similar masses of yellow-gray and reddish-brown soft tissue, varying from 2.0 to 4.0 cm. in greatest dimension.

FOLLOW-UP:

As of 1968 the patient was stated to be in good general condition with the exception of intermittent midvertex and bi-temporal headaches. No other information is available as the patient was the lost to follow-up.
This 32 year old Caucasian female presented with a two months' history of severe headaches, vomiting and personality changes. She had been mentally retarded since birth. A neurologist examined the patient and found signs of increased intracranial pressure. A thorough neurologic work-up, including surgical exploration, failed to reveal a specific etiology. The patient died a few weeks later of pneumonia.

GROSS PATHOLOGY (AUTOPSY):

At autopsy, the dura appeared normal. The leptomeninges, however, were extensively pigmented over the cerebral hemispheres. Coronal sections of the cerebrum showed extensive tumor involvement of almost the entire gray matter of the anterior three quarters of the brain. There was no involvement of the white matter, basal ganglia or brain stem.

The only other evidence of tumor in the body were six gray-pink, centrally necrotic neoplasms, measuring up to 2.0 cm, in the liver.
NAME: R.V.  JUNE 1974 - CASE NO. 12
AGE: 27  SEX: Male  RACE: Caucasian
CONTRIBUTOR: Roger Terry, M.D.
LAC-USC Medical Center Los Angeles, California
ACCESSION NO. 20644
OUTSIDE NO, 70-12941

TISSUE FROM: Pituitary

CLINICAL ABSTRACT:

The patient had progressive visual impairment, retro-orbital pain, and pressure sensation of the left eye for one year. He was mentally retarded (mild), born with multiple congenital anomalies, including malrotation of the G.I. system, hypospadias, and he had an undescended left testis. He had always been short and had no pubertal growth spurt. His genitalia were underdeveloped and he had a high voice. He began shaving once a day at age 17.

Physical Examination: The patient was slightly obese. He had adequate beard growth but axillary and pubic hair were decreased. He had decreased visual acuity on the left (20/100 o.s.) with bitemporal field loss more on the left.

Laboratory Data: Hgb 12.3 gm%, P.B.I. 4.6 mgm%. Skull roentgenogram showed a markedly enlarged sella with undermining of the anterior clinoids and soft tissue projection into the nasal pharynx.

SURGERY: (August 29, 1970)

A right frontal craniotomy was performed and a large tumor was found that pushed up the left optic nerve. The entire tumor was removed.

GROSS PATHOLOGY:

The tumor was multiple fragments of gray tissue and the largest measured 0.5 x 0.5 x 0.2 cm.

FOLLOW-UP:

The patient was discharged on replacement medications. He had diabetes insipidus and panhypopituitarism. He was doing well as of April, 1974.
STUDY GROUP CASES

For

JUNE 1974

CASE NO. 1 ACC. NO. 20163 CONTRIBUTOR: Robert L. Berggren, M.D.

LOS ANGELES: Meningeal angioblastoma, malignant - 13

SAN FRANCISCO: Osteogenic sarcoma - 1; fibrosarcoma - 6; angioblastic meningioma - 6

CENTRAL VALLEY: Meningeal sarcoma - 8; hemangio-endothelioma - 1; glomus tumor - 1

OAKLAND: Malignant meningioma, angioblastic type - 7

WEST LOS ANGELES: Angioblastic meningioma - 4; hemangiopericytoma - 1; undifferentiated sarcoma - 1

INLAND (SAN BERNARDINO): Angioblastic meningioma, malignant - 5; spindle cell sarcoma of leptomeninges - 1

OHIO: Angioblastic meningioma

SACRAMENTO: Meningioma, sarcomatous - 2; meningioma, transitional (benign) - 4

ARGENTINA: Mesenchymal sarcoma (with osteoid formation) - 2

FILE DIAGNOSIS:

Angioblastic meningioma, malignant 1919-9530
JUNE 1974

CASE NO. 2  ACC. NO. 18233  CONTRIBUTOR: E. R. Jennings, M.D.

LOS ANGELES: Metastatic giant cell carcinoma from lung - 13

SAN FRANCISCO: Giant cell glioblastoma - 9; metastatic giant cell tumor of lung - 4

CENTRAL VALLEY: Metastatic carcinoma, giant cell, probably primary in lung - 9; Giant cell carcinoma (or glioblastoma) of brain, - 1

OAKLAND: Glioblastoma multiforme, giant cell variant - 5; metastatic giant cell carcinoma, ? lung - 3

WEST LOS ANGELES: Monster cell glioblastoma - 2; metastatic carcinoma - 4

INLAND (SAN BERNARDINO): Glioblastoma multiforme - 3; metastatic giant cell tumor of lung - 3

OHTO: Giant cell glioblastoma

SACRAMENTO: Glioblastoma multiforme - 5; metastatic carcinoma, lung - 1

ARGENTINA: Giant cell glioblastoma - 2

FOLLOW-UP:

The patient recovered from surgery and was admitted to another hospital where the right upper lobe of lung was resected. The lung contained an undifferentiated large cell carcinoma with prominent vascular involvement. At a subsequent hospital a biopsy of the right hip mass and an excision of a tumor showed metastatic undifferentiated giant cell tumor. The patient died November 27, 1969.

FILE DIAGNOSIS:

Metastatic giant cell carcinoma from lung, brain 1919-8033
JUNE 1974

CASE NO. 3  ACC. NO. 15524  CONTRIBUTOR: J. D. Kirshbaum, M.D.

LOS ANGELES: Papillary ependymoma - 13
SAN FRANCISCO: Papillary ependymoma of cauda equina - 13
CENTRAL VALLEY: Papillary ependymoma of the sacrum - 10
OAKLAND: Papillary ependymoma - 8
WEST LOS ANGELES: Myxopapillary ependymoma - 6
INLAND (SAN BERNARDINO): Ependymoma - 6
OHIO: Ependymoma
SACRAMENTO: Ependymoma - 6
ARGENTINA: Ependymoma - 2

FILE DIAGNOSIS:

Papillary ependymoma, sacral region  1922-9391
CASE NO. 4   ACC. NO. 11327  CONTRIBUTOR: W. K. Bullock, M.D.

LOS ANGELES: Vascular malformation - 8; cavernous hemangioma - 4
SAN FRANCISCO: A-V malformation - 11; cavernous hemangioma - 2
CENTRAL VALLEY: Arteriovenous malformation - 9; cavernous hemangioma - 1
OAKLAND: Cavernous hemangioma - 9; AV malformation - 1
WEST LOS ANGELES: Venous malformation - 2; cavernous venous angioma - 2; arterio-venous malformation - 2
INLAND (SAN BERNARDINO): Cavernous hemangioma - 2; angiomatous malformation - 4
OHIO: Arteriovenous malformation with hemorrhage and thrombosis
SACRAMENTO: A-V malformation - 6
ARGENTINA: Cavernous angioma - 2

FILE DIAGNOSIS:
   Cavernous hemangioma  1919-9120
JUNE 1974

CASE NO. 5  ACC. NO. 15990  CONTRIBUTOR: E. M. Butt, M.D.

LOS ANGELES: Sarcoma, NOS - 10; meningioma - 2

SAN FRANCISCO: Fibrosarcoma (meningeal sarcoma) - 7; mixed gliofibrosarcoma - 5

CENTRAL VALLEY: Fibrosarcoma - 6; schwannoma - 2; fibrillary astrocytoma - 2

OAKLAND: Fibrocytic meningosarcoma - 4; fibrosarcoma - 3; glioblastoma - 3

WEST LOS ANGELES: Meningeal fibrosarcoma - 6

INLAND (SAN BERNARDINO): Astrocytoma, pilocytic type - 1; fibrosarcoma - 5

OHIO: Fibrosarcoma

SACRAMENTO: Pilocytic astrocytoma - 1; meningioma, malignant - 1; meningioma, benign - 1; schwannoma - 1

ARGENTINA: Fibrosarcoma (meningeal?) - 2

FILE DIAGNOSIS:

Meningeal fibrosarcoma 1921-8823
JUNE 1974

CASE NO. 6   ACC. NO. 17290   CONTRIBUTOR: A. H. Christensen, M.D.

LOS ANGELES: Subependymoma - 13
SAN FRANCISCO: Subependymoma (subependymal astrocytoma) - 8; astrocytoma - 5
CENTRAL VALLEY: Subependymoma - 2; astrocytoma - 5; tuberous sclerosis - 1
OAKLAND: Subependymal astrocytoma - 10
WEST LOS ANGELES: Subependymoma - 6
INLAND (SAN BERNARDINO): Subependymoma - 6
OHIO: Diffuse fibrillary cerebral astrocytoma
SACRAMENTO: Astrocytoma, group I - 6
ARGENTINA: Subependymoma - 2

FILE DIAGNOSIS:
Subependymoma, brain

1919-9381
Case No. 7  ACC. No. 20645  Contributor: John Craig, M.D.

Los Angeles: Oligodendroglioma - 13
San Francisco: Oligodendroglioma - 13
Central Valley: Oligodendroglioma - 10
Oakland: Oligodendroglioma - 10
West Los Angeles: Oligodendroglioma - 6
Inland (San Bernardino): Oligodendroglioma - 6
Ohio: Oligodendroglioma
Sacramento: Oligodendroglioma - 6
Argentina: Oligodendroglioma - 2

File Diagnosis:
Oligodendroglioma 1919-9453

Corrigendum: Follow-up: The residual brain tumor measured up to 4.0 cm. (not 10 x 5 x 4 cm.).
JUNE 1974

CASE NO. 8  ACC. NO. 18556  CONTRIBUTOR: Frank J. Glassy, M.D.

LOS ANGELES: Medulloblastoma - 13

SAN FRANCISCO: Medulloblastoma (desmoplastic) - 13

CENTRAL VALLEY: Ependymoblastoma - 8; medulloblastoma - 1; metastatic seminoma - 1

OAKLAND: Medulloblastoma - 9; reticulum cell sarcoma - 1

WEST LOS ANGELES: Medulloblastoma with spongioblastic differentiation - 6

INLAND (SAN BERNARDINO): Medulloblastoma, desmoplastic type - 6

OHIO: Medulloblastoma

SACRAMENTO: Medulloblastoma - 6

ARGENTINA: Oligodendroglioma - 1; medulloblastoma - 1

FILE DIAGNOSIS:

Medulloblastoma 1918-9473
JUNE 1974

CASE NO. 9  ACC. NO. 20130  CONTRIBUTOR: J. R. Phillips, M.D.

LOS ANGELES: Gemistocytic astrocytoma - 13
SAN FRANCISCO: Gemistocytic astrocytoma - 13
CENTRAL VALLEY: Gemistocytic astrocytoma - 10
OAKLAND: Gemistocytic astrocytoma - 10
WEST LOS ANGELES: Gemistocytic astrocytoma - 6
INLAND (SAN BERNARDINO): Astrocytoma, gemistocytic - 6
OHIO: Diffuse cerebral astrocytoma
SACRAMENTO: Gemistocytic astrocytoma - 6
ARGENTINA: Gemistocytic astrocytoma (grade II) - 2

FILE DIAGNOSIS:

Gemistocytic astrocytoma, frontal lobe 1911-9413
JUNE 1974

CASE NO. 10  ACC. NO. 11556  CONTRIBUTOR: D. Gordon Johnston, M.D.

LOS ANGELES: Cerebellar astrocytoma - 13

SAN FRANCISCO: Juvenile cystic cerebellar astrocytoma - 13

CENTRAL VALLEY: Astrocytoma - 4; mixed astrocytoma and oligodendroglioma - 3; subependymoma - 1; ependymoma - 1; hemangioblastoma - 1

OAKLAND: Protoplasmic astrocytoma, cerebellum - 7; hemangioblastoma - 3

WEST LOS ANGELES: Cystic astrocytoma - 6

INLAND (SAN BERNARDINO): Cerebellar astrocytoma - 6

OHIO: Ependymoma

SACRAMENTO: Astrocytoma, cerebellar - 6

ARGENTINA: Fibrillary astrocytoma - 1; oligodendroglioma - 1

FILE DIAGNOSIS:

Cerebellar astrocytoma, cerebellum 1916-9403
LOS ANGELES: Meningeal melanomatosis - 10; metastatic melanoma - 3

SAN FRANCISCO: Malignant melanoma - 3; melanosis - 1; melanomatosis - 1; malignant melanoma arising in leptomeningeal melanomatosis - 8

CENTRAL VALLEY: Melanotic tumor (melanoma), malignant - 9; Melanotic tumor primary in the meninges - 1

OAKLAND: Metastatic melanoma - 6; diffuse leptomeningeal melanomatosis - 4

WEST LOS ANGELES: Leptomeningeal melanomatosis - 6

INLAND (SAN BERNARDINO): Melanoblastosis of meninges - 6

OHIO: Malignant melanoma, possibly metastatic; possibly malignant melanomatosis of leptomeninges

SACRAMENTO: Melanoma, malignant - 6

ARGENTINA: Melanoma (most likely primary, but possibly metastatic) - 2

FILE DIAGNOSIS:

Meningeal melanomatosis, brain 1921-8723
Note: No primary site for melanoma was established.
CASE NO. 12  ACC. NO. 20644  CONTRIBUTOR: Roger Terry, M.D.

LOS ANGELES:  Pituitary adenoma - 10; chromophobe adenoma - 3
SAN FRANCISCO:  Pituitary adenoma - 13
CENTRAL VALLEY:  Chromophobe adenoma - 10
OAKLAND:  Chromophobe adenoma - 10
WEST LOS ANGELES:  Chromophobe adenoma - 6
INLAND (SAN BERNARDINO):  Pituitary adenoma - 6
OHIO:  Pituitary, chromophobe adenoma
SACRAMENTO:  Chromophobe adenoma - 6
ARGENTINA:  Chromophobe adenoma of pituitary - 2

FILE DIAGNOSIS:

    Pituitary adenoma

REFERENCES:

Young, D.G. et al:  Pituitary Tumors Associated with Acromegaly.

Note:  Most patients with acromegaly do not have acidophilic type of chromophobe adenoma.