

ARTHUR PURDY STOUT SOCIETY
ANNUAL SLIDE SEMINAR

BONE

May 1975

2:00 P.M. - Hospital for Special Surgery
Room 261-A Auditorium
535 East 70th Street
New York, New York

5:00 P.M. - Business Meeting

6:30 P.M. - Union Club
101 East 69th Street
New York, New York

DIAGNOSTIC LIST

Case #

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HISTORIES

Case #1 - Saul Kay, M.D.

15-year-old female with a lesion of left tibial area, first presenting as an inconspicuous soft tissue nodule in April, 1974. Minor symptoms to area. Lesion was related to, but without history of trauma. 5 weeks later, lesion was larger by palpation. X-ray: calcification in soft tissue adjacent to periosteum of metaphysis of tibia. Progression of lesion, by x-ray and palpation, led to en block excision of area to and including cancellous bone.

Case #2 - Steve Silverberg, M.D.

The patient is an 18-year-old white male who complained of pain in the left thigh for one year. A biopsy revealed "fibrosarcoma" and a left hip disarticulation was performed. The tumor occupied the medial aspect of the thigh, extending from mid-thigh to the knee and from the medullary space of the femur to the subcutaneous. The tumor was firm, pink-gray and relatively homogeneous and formed a Codman's triangle where it eroded through the periosteum on the medial aspect of the distal femur. The tumor was also adherent to the quadriceps tendon.

Case #3 - Dr. Charles L. Cuttino, Dr. Richard Elzay & Dr. William J. Frable

A 39-year-old white male was referred to an oral surgeon for evaluation of a swelling of the right side of the face. A roentgenogram of the periapical view showed an area of ill-defined bone change anterior to the mandibular second molar. There was moderate enlargement of the right mandibular body in comparison to the left. A lateral view of the skull showed combined lytic and blastic changes in the cranial vault. X-ray studies of other bones did not show other abnormalities. Blood alkaline phosphatase was 575 milliunits per ml. Calcium and phosphorus were normal. Intraoral examination revealed two discrete masses, the largest measuring approximately 2.5 x 2.0 cm. Under local anesthesia, a biopsy was done.

Case #4 - Eduardo Yunis, M.D. and Howard D. Dorfman, M.D.

A 10½-year-old white girl was admitted to Children's Hospital in Pittsburgh on October 8, 1974 for biopsy of a lesion of the left knee (CS2543-74). Patient fell on to her flexed knee in July, 1974. She was not seen by a doctor at that time. There was no swelling or deformity. However, there was persistent pain, and she walked on crutches for one month. Evaluation of the left knee at Children's Hospital of Pittsburgh was negative except for slight pain on the lateral side with the knee in flexion and bent laterally. There was no tenderness. X-rays demonstrated a lytic lesion in the distal femoral epiphysis on

HISTORIES (continued)

the lateral side. It was well-circumscribed with slight peripheral bony reaction. The radiologist's impression was a chondroblastoma. The lesion was curetted, and the site bone grafted.

Case #5 - Walter Bauer, M.D.

A 23-year-old woman with a history of nasal stuffiness and right sinus trouble was found to have several "polyps" high in the anterior ethmoid region. These were removed by snare during an antral washing. Sixteen months later a mass had recurred. X-rays (enclosed, 5a) showed a soft tissue lesion in the region of the ethmoid sinus with destruction of the medial right maxillary sinus. The lesion was removed by an intranasal route. Three months after that, the patient developed a right proptosis, and the mass was seen to be recurrent again. In the third operation, the lesion was removed by a lateral rhinotomy. Four months later, she returned with progressive right proptosis. The mass was larger than before, completely obstructing the right nasal passage and partially obstructing the left side with septal destruction. The tumor bulged into the right orbital fossa (see enclosed sinus laminogram, 5b). This time an en-bloc ethmoidectomy and partial right maxillectomy was performed.

Case #6 - Hugh F. Luddecke, M.D.

On 11/12/74 this boy had a small subcutaneous nodule excised from his scalp in the occipital region with a pre-op diagnosis of "epidermal inclusion cyst, degenerated". At operation the surgeon realized that he had to go through all layers of the scalp and that the tumor was probably attached to the periosteum of the occipital bone just to the right of the midline. This specimen was about 2.5 cm. in maximum diameter and after many sections, studied by several pathologists, the area was re-excised including a segment of bone. It was noted at this operation that the tumor apparently went through the inner table of the skull and was thought to be attached to the dura in an area about 1 cm. in diameter. This was scraped off, and the area was cauterized but no dura was removed. The x-rays are of the segment of skull removed at the second operation.

Case #7 - Andrew G. Huvos, M.D.

This 15-year-old boy developed pain and swelling in the right knee 3 months ago, which was treated conservatively. This specimen is from the right distal femur. Patient x-ray enclosed.

HISTORIES (continued)

Case #8 - Frank Vellios, M.D.

A 31-year-old male Caucasian school teacher presented to his local physician 3 weeks earlier with a chief complaint of gradual development of pain in his left hand which he attributed to a minor injury. He also complained of feeling somewhat weak, "not up to par", and episodes of elevated temperature. Roentgenograms of the left hand revealed numerous lytic lesions involving primarily the metacarpal bones, but some of the carpal bones and phalanges were also involved. Biopsy of the lesions was performed.

Case #9 - Harold McCartney, M.D.

This is tissue from a 68-year-old male who had the diagnosis of "keratitis" of the right jaw and ectopic molar. The patient had multiple incisions and drainage procedures of the area, plus antibiotic therapy extending over a long period of time. The patient was treated for a pathologic fracture, healed with only pain medication, and no other therapy. Physical examination showed the patient with a deformed non-tender right jaw. The rest of the physical examination, and all laboratory studies are, otherwise, not remarkable. Radiologic evidence of the bony obstruction is contained on the enclosed film. There was no evidence of any other tumor present in this patient.

Case #10 - William H. Hartmann, M.D.

This 15-year-old male presented with a painful left knee. Tissue is from the lytic area in question on the composite x-ray.

Case #11 - C. Peter Schwinn, M.D.

This Mexican-American male first presented in November, 1974 with a chief complaint of pain and mass, right knee. He stated that 8 months previously, while employed as a butcher, he was skinning a cow when the cow reflexly kicked, striking his right knee and right hand. As a result he sustained a cut on the lower aspect of the thigh with a butcher knife which he was holding in his right hand. This cut healed primarily. Then for 3 months, he had increasing pain and noted a mass on the post-lateral aspect of his right knee. The patient saw a private orthopedist who explored the knee and found a tumor. He was then transferred to the Los Angeles County-U.S.C. Medical Center for treatment. X-ray: 11/18/74. Excisional biopsy of mass, lateral aspect of right knee, 12/12/74.

DIAGNOSTIC LIST

1. Junctional Epithelium (Para-odontal) Inflammation
2. Periapical Pathogenesis of Primary Caries of Root
3. Giant Cell Tumor of Jaw's Disease

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4. Osteosarcoma of Occipital Bone
5. Osteosarcoma with focal chondrocytic features

BONE

6. Relapsed Hemangiopericytoma

7. Relapsed Tumor

DISCUSSION
AND
DIAGNOSTIC LIST

8. Osteosarcoma

9. Osteosarcoma arising in synovial chondrosarcoma

DIAGNOSTIC LIST 232

Case #

1. Juxta-cortical (Para-osteal) Osteosarcoma
2. Primitive Multipotential Primary Sarcoma of Bone
3. Giant Cell Tumor in Paget's Disease
4. Well Differentiated Hemangioendothelioma
5. Peculiar Cementifying Fibroma
6. Osteosarcoma of Occipital Bone
7. Osteosarcoma with Focal Telangiectatic Features
8. Malignant Hemangioendothelioma
9. Malignant Tumor
10. Osteosarcoma
11. Chondrosarcoma Arising in Synovial Chondromatosis

Case #1 - Our three experts essentially agreed with the diagnosis of osteosarcoma. Considerable discussion and concern was expressed with reference to the use of either the prefix, juxta-cortical or para-osteal. In fact, opinion was expressed by Dr. Ackerman that this really was a medullary tumor that appeared to be presenting in a juxta-cortical location. At present, the patient is known to have a recurrence.

Case #2 - The original diagnosis was fibrosarcoma. Dr. Schwinn favored a diagnosis of osteosarcoma; Dr. Huvos, multipotential primary sarcoma of bone; Dr. Dorfman, malignant fibrous histiocytoma of bone. Dr. Silverberg's discussion concerned itself with the fact that an osteosarcoma-like area was present in something like 2 of 40 slides and a chondrosarcoma-like area present in 1 of 40. The case was extensively studied by tissue culture and electron microscopic methodologies and was, as noted, favored to be similar to those reported by Hutter in Cancer 19:1-25, 1966. In addition, there was discussion, without resolution, with reference to how much neoplastic osteoid do you need to, in fact, call a malignant mesenchymal tumor an osteosarcoma.

Case #3 - Our experts all agreed with the diagnosis. The patient is known to have recurrences about a year later, one located in each side of the mandible. This case has been reported in the Archives of Otolaryngology 100:233-236, 1974.

Case #4 - Dr. Schwinn accepted this as a hemangioendothelioma. Dr. Huvos found areas that were acceptable as a cavernous hemangioma with areas of hemangiosarcoma. The lesion was treated conservatively, and the patient remains well at the present time.

Case #5 - Unfortunately, Dr. Bauer could not be present to present his case, and we trust that he has fully recovered.

Dr. Huvos thought this was a fibrous dysplasia with cementum; hence, a cementifying fibroma. Dr. Schwinn was not certain of the lesion, but favored a diagnosis of ossifying fibroma. Dr. Dorfman thought there was sufficient atypia to warrant a diagnosis of fibrosarcoma in a cementifying fibroma. Dr. Ackerman expressed concern with reference to the lesion, and Dr. Reed thought this was an aggressive cementifying fibroma.

Case #6 - Dr. Huvos called it a mesenchymal chondrosarcoma and Dr. Schwinn, a chondrosarcoma. Dr. Dorfman saw the case previously and called it an osteosarcoma as did Dr. Ackerman after some considerable discussion. The patient has been re-excised with no residual tumor found in the dura and has subsequently been treated with chemotherapeutic agents and remains well at the present time.

Case #7 - Our experts agreed with the diagnosis. Dr. Huvos presented a discussion with reference to extensive chemotherapy and removal of involved bone.

Case #8 - Dr. Dorfman made the same diagnosis. Dr. Huvos called it an angiosarcoma with Kaposi-like features. Dr. Schwinn called it a malignant hemangioendothelioma. The patient is known to be alive and well 14 months post-amputation of the arm.

Case #9 - There was considerable discussion with all three of our experts, as well as the entire audience agreeing with the diagnosis of benign inflammatory lesion on the submitted slide. The patient is known to have a normal calcium and phosphorus. He is also known to have a recurrence with a malignancy of uncertain origin clearly present in the material presented by Dr. Rosai.

Case #10 - All three experts agreed with the diagnosis. The patient subsequently had a recurrence, x-ray treatment to the local lesion, amputation, as well as x-ray and chemotherapy for multiple lesions in the lung. He is alive and well as of May, 1975, which is 13 years since his amputation and approximately 4 years since his last pulmonary resection.

Case #11 - Drs. Dorfman and Huvos called it a synovial chondrosarcoma. Dr. Schwinn's discussion concerned itself with the cytologic malignancy present, but felt that a cautious clinical approach was appropriate.

CASE 2



CASE 1

CASE 3

CASE 2





CASE 3



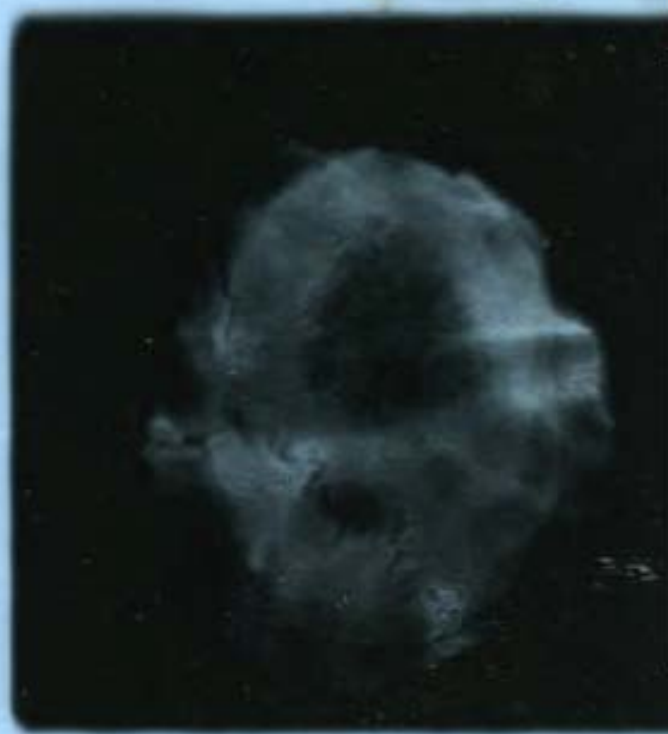
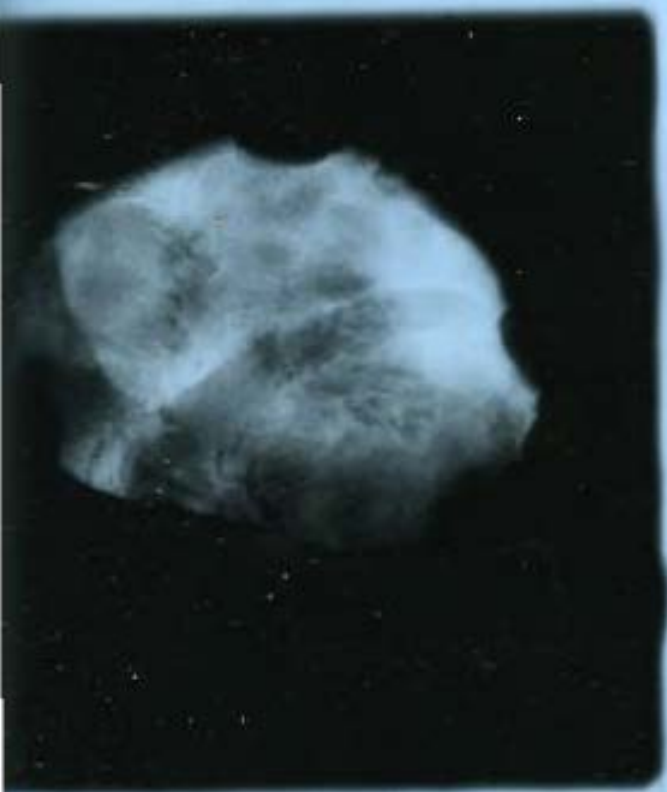


CASE 4



CASE 5

CASE 6





CASE 7



CASE 8



CASE 10





CASE 9

CASE 11



CASE 9



CASE 11