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"OFFICIAL DIAGNOSIS"

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Histones after 336

CASE # 1 (78-949)

PLEOMORPHIC ADENOMA
(Contributed by Fred P. Handler, M.D., 1431 S.W. Blvd., Jefferson City, MO)

Dr. Abrams from UCLA commented "I would call this pleomorphic adenoma, although I am concerned about the cellular pleomorphism at one end of the specimen, I do not believe it is sufficient to justify calling the lesion a malignant mixed tumor. Please do not tell me it had metastasized." Both Drs. Corio and Tarpley from Bethesda, NIH called it "benign mixed tumor." Dr. Fay from Fort Bliss, Texas stated "pleomorphic adenoma, five of our fourteen pathologists considered this as a malignant tumor." Dr. Ordie King; mucoepidermoid carcinoma, well differentiated versus mixed tumor with squamous metaplasia. Dr. Weathers, Acting Chairman, Dept. of Oral Pathology, Emory University School of Dentistry said the following: "Cellular mixed tumor, there is a great deal of squamous differentiation and foci of mucous cells and even intermediate type of cells, but not enough to call it a mucoepidermoid. Would this have been one carcinoma, expleomorphic adenoma?" Dr. Rowe from Ann Arbor, Michigan called it mucoepidermoid carcinoma. Dr. Rosai from Minnesota and Dr. LeGal from Strasbourg called it "benign mixed tumor of the parotid.

CASE # 2 (S78-13894-2)

HEMANGIOENDOTHELIOMA
(Contributed by Dr. William Bucher, Pathologist at Boone County Hospital, Columbia, MO)

Dr. Hori from Elkins, West Virginia called it "hemangioendothelioma." Two members of the pathology staff in Dr. Fay's laboratory felt that this was a "hemangiopericytoma." Dr. Shafer from Indiana called it "hemangioendothelioma of infancy."

CASE # 3 (2366/78)

MESENCHYMAL CHONDROSARCOMA
(Contributed by Dr. Yvon LeGal, Institut D'Anatomie, Pathologique, Faculte De Medeceine, I Place De L'Hopital, Strasbourg (Bas-Rhin) France)

Dr. LeGal commented as follows: "mesenchymal chondrosarcoma, it has recurred several times since in changing morphology. Now some territories are maturing in osteosarcoma." Dr. Azar from Tampa stated: "periosteal (juxtacortical osteosarcoma)." This was also the diagnosis of Dr. Meyer from Jewish Hospital in St. Louis. Dr. Wesley from the University of Detroit called it "osteogenic sarcoma." "This tumor has not change it's characteristics; the diagnosis of osteosarcoma remains the most appropriate designation."said Dr. Abrams from UCLA. Dr. Rosai from Minnesota wrote: "I still believe that this is osteosarcoma, although there are foci of closely packed polygonal cells suggesting that this tumor may be of odontogenic origin and perhaps a variant of ameloblastic sarcoma."

CASE # 3 continued

Osteosarcoma was also the diagnosis of John Meyer from St. Louis and Dr. Wesley from Detroit. Dr. Rowe from Michigan called it "chondrosarcoma." Drs. King and Cherrick from SIU, as well as Dr. Shafer from Indiana called it "chondroblastic osteosarcoma."

CASE # 4 (H-78-186)

SUBCORNEAL PUSTULAR DERMATOSIS
(Contributed by Dr. William H. Halliwell, DVM, Ph.D., Director of Pathology-Toxicology, Elars Bio-research Laboratories, Inc., Fort Collins, Colorado)

Dr. Rosai from Minnesota commented: "If the patient were a human I would suggest impetigo, since the patient is a dog, I have no idea what to suggest." Drs. Corio and Tarpley from Bethesda stated: "sub-corneal vesiculation comparable with impetigo in humans." "An obvious good example of Collie's nose." commented Dr. Shafer from Indiana.

CASE # 5 (78-872)

CEMENTO-OSSIFYING FIBROMA
(Contributed by Dr. Charles Dunlap, Dept. of Oral Pathology, University of Missouri-Kansas City, School of Dentistry, Kansas City, MO)

Dr. Wesley from Detroit called it "fibro-osseous lesion compatible with juvenile aggressive ossifying fibroma." This was also the diagnosis of Dr. King and Dr. Cherrick, SIU, Dr. Rosai from Minnesota, Dr. Meyer from St. Louis, and Dr. Hori from West Virginia. Dr. Weathers from Emory stated: "Desmoplastic fibroma is as close as I can pigeon-hole this one." Dr. LeGal for Strasbourg called it "ossifying fibroma." Dr. Abrams from UCLA stated: "It seems to be a benign neoplasm producing bone. Therefore, I would call it ossifying fibroma. If you believe the mineralized is cementum then I suppose a diagnosis of cementifying fibroma would be acceptable. Apparently there are no clinical or prognostic differences between cementifying fibroma and ossifying fibroma." The commentaries of Dr. Shafer from Indiana: "This is a strange case. It has features of an odontogenic fibroma, of Lent Johnson's juvenile active ossifying fibroma, and also of the lesion that we have been calling a preosteoblastoma." "Odontogenic fibroma with foreign body reaction" was the diagnosis of Drs. Corio and Tarpley from Bethesda at NIH. Drs. Dunlap and Barker commented: "Cemento-ossifying fibroma, however, it does not have the typical whorled pattern and bone trabeculae. Oseoblasts are also not prominent. Due to the presence of giant cell clusters, hemosiderin and widely scattered sparse bone formation non-ossifying fibroma is not supposed to be present in Desmoplastic Fibromas."

CASE # 6 (78-4500)

JUVENILE FIBROMATOSIS
(Contributed by Dr. Charles Dunlap, and submitted by Dr. Caffrey, Independence, MO)

"Ossifying fibroma" was the diagnosis of Dr. Handler for Jefferson City, Dr. Azar from Tampa, Dr. Meyer from St. Louis, and Dr. King from SIU. Dr. Wesley from Detroit calls it "fibrosarcoma some features of an aggressive fibromatosis." Dr. Abrams from UCLA stated, "Aggressive or juvenile fibromatosis. I believe it is a locally destructive lesion without metastatic potential." This was also

the diagnosis of Dr. Weathers from Emory. Dr. Rosai from Minnesota stated: "I believe this is another benign fibro-osseous lesion, either fibrous dysplasia or ossifying fibroma." The majority of the group of Dr. Fay from Beaumont Army Medical Center call it a "fibrous histiocytom", except Drs. Lundy and Ortiz who call it "ossifying fibroma."

The following commentaries of fibro-osseous lesion was sent by Drs. Barker and Dunlap from University of Missouri-Kansas City, School of Dentistry, Kansas City, MO.

OSSIFYING FIBROMA

We believe an ossifying fibroma is a fibro-osseous lesion which has a well demarcated or sharply circumscribed border on raiographs. As described by Waldron and Giansanti, Oral Surg., March 1973, and Schmaman, Smith and Ackerman in Cancer, August 1970, this condition is composed of whorling cellular fibrous connective tissue which may form either mature and immature bone often showing osteoblastic rimming of trabeculae which may assume a "rete form" pattern. Osteoclasts are often present and sometimes numerous. We believe that this is a separate entity not a variant of fibrous dysplasia.

NON-OSSIFYING FIBROMA

Usually seen before age 25. Dahlin, in the third edition of Bone Tumors, reports no cases in the jaws. Radiographically he describes it to have an inner border of either a thin or prominent scalloped line of sclerosis. The lesion often shows trabeculae transversing the lesion giving it a multiloculated appearance. It usually produces some cortical expansion. In the long bones both Dahlin and the AFIP Fascicle agree that this lesion has a distinctive radiographic appearance. Microscopically NOF containes a cellular fibrous tissue which is often whorled. Often it has benign multinucleated cells which frequently leads to a diagnosis of giant cell tumor or granuloma. There can be foci of osseous metaplasia, occasional mitoses, and the lesion may contain lipophages and hemosiderin pigmentation.

DESMOPLASTIC FIBROMA

Has a wide age range but almost 90% below age 30. Pain or aching is a common complaint of the patients. Cases have been reported in the jaws. Radiographically it is usually well demarcated, but sometimes has an irregular border producing a trabeculated appearance. Histologically it is a hypocellular fibrous connective tissue with small spindle shaped fibroblasts with mitoses being rare. According to several authors, bone formation is <u>not</u> seen thus distinguishing the lesion from fibrous dysplasia. There is also a lack of giant cells which can help distinguish this from a non-ossifying fibroma. A fibrosarcoma would be much more cellular.

JUVENILE FIBROMATOSIS

This appears to be a controversial area. The lesion was first described by Stout in Cancer, Sept. 1954, however, no bone lesions in children up to age 15 whose fibrous lesion was not well defined by other categories such as desmoplastic fibroma, etc. Enzinger described a similar lesion as aggressive infantile fibromatosis. However, some lesions described by Enzinger would fit Stout's differentiated fibrosarcoma diagnosis. It appears that you can not judge clinical behavior on histology and the final proof of a fibrosarcoma would be metastasis.

These lesions arise in soft tissue or periosteum and may invade bone thus differing from desmoplastic fibromas which arise centrally in bone and expand cortices but leaving them generally intact. Histologically, the fibroblastic proliferation may extensively infiltrate bone, fat, and muscle. The spindle cells are usually uniform in size, well-differentiated and devoid of mitoses. There is usually considerable collagen and reticulin formation. Dahlin notes that the desmoplastic fibroma is a separate entity while Rosai says it may represent the bone counterpart of the soft tissue desmoid. Stout and Enzinger both suggest a possible

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designation of desmoid fibromatosis, a desmoid tumor for the less cellular lesions.

Conley (Amer J. of Surgery, 112:609, 1966) reported 40 cases with about 50% recurrence rate. Several recent articles, some with jaw lesions are:

Peede, Oral Surg. 43:651 May 1977
Larsson, J. Oral Path 5:29-51 1976
Henefer, J. Oral Surg. 36: Dec. 1978

JUVENILE ACTIVE OR AGGRESSIVE OSSIFYING FIBROMA
This entity appears in the literature but is poorly described or documented as to what it actually looks like histologically. Lent Johnson's name is often associated with this lesion but we know of no reference. It behaves as an aggressive fibro-osseous lesion which may kill by local extension.

What then are these lesions? Using the above information, we believe Batsakis best sums it up in Tumors of the Head and Neck. He notes that fibrous lesions often show a mixture of features making exact classification difficult.

CASE # 7 (Chart # 47930)
78-2519

MUCOEPIDERMOID CARCINOMA
(Contributed by Dr. Don Krautzer, Harrison, Arkansas)

Dr. Lundy from Beaumont Army Medical Center called it "necrotizing sialometaplasia." Dr. Rosai from Minnesota stated, "This is a tumor of minor salivary gland origin arising in the palate and characterized by very prominent squamous metaplasia. I believe it is either benign or of a very low degree of malignancy. I think it comes closer to the lesion than people have designated as sialadenoma papilliferum than any other salivary gland tumor I know." Dr. Azar from Tampa called it "mucoepidermoid tumor"which was also the diagnosis of Dr. King from SIU. Drs. Hori from West Virgina, Jones from Beaumont Army Medical Center, and Rowe from Michigan call it "Squamous cell carcinoma." Dr. Shafer from Indiana called it "high grade mucoepidermoid carcinoma. Dr. Weathers from Emory commented; "High grade mucoepidermoid carcinoma. Did this arise in a previously benign mixed tumor?"