CASE HISTORY

CASE 1: 89-2373 (1 slide)
Contributed by Drs. Charles Dunlap and Bruce Barker, University of Missouri-Kansas City School of Dentistry, Kansas City, Missouri.

This 46-year-old female had lesions on the buccal mucosa bilaterally said to be clinically typical of lichen planus. We are especially interested in learning participants comments regarding the deep inflammatory filtrate.

CASE 2: 89-2735 (1 slide)
Contributed by Drs. Charles Dunlap and Bruce Barker, University of Missouri-Kansas City School of Dentistry, Kansas City, Missouri.

This 65-year-old male had a recurrent cyst distal to the upper left first molar tooth.

CASE 3: CLINICAL PHOTO ONLY - NO SLIDE
Contributed by Drs. Charles Dunlap and Bruce Barker, University of Missouri-Kansas City School of Dentistry, Kansas City, Missouri.

This 23-year-old female had an approximately 6 week history of gingivitis as shown in the clinical photo. There were extremely subtle, almost invisible areas of superficial desquamation in spotty areas of oral mucosa. The other lesions were not red. She had recently been hospitalized with biopsy and multiple cultures. No diagnosis was established. All blood values were normal. She has no other-known mucosa, skin or gastrointestinal disease. A biopsy of the gingiva was taken and will be presented at the July conference.

CASE 4: 90-3758 (1 slide)
Contributed by D. L. Dawson, M.D., Penrose Hospital, Colorado Springs, Colorado.

DN, a 31-year-old Caucasian male who developed a slowly growing lesion in the left tonsillar pillar area and retromolar pad, solid, rubbery in character, firmly attached to surrounding tissue, noninvasive into bone.
CASE 5: S90-3123 (1 slide, 2 photos of x-rays)
Contributed by Ronald W. Oxenhandler, M.D., Memorial Hospital, Chattanooga, Tennessee.

61-year-old woman was recently referred for ENT evaluation for symptoms referable to a maxillary sinus tumor. A right Caldwell-Luc procedure was performed with debulking of the tumor in the region of the malar complex.

Dr. Oxenhandler would like participants opinion of diagnosis and treatment.

CASE 6: S90-499 (1 slide and 1 photo)
Contributed by Ellis A. Ingram, M.D., University of Missouri-Columbia Hospital and Clinics, Columbia, Missouri.

DL, a 67-year-old white female who is in excellent health, noticed a small mass in her right cheek one month ago. The mass measured 1 cm., nonpainful and does not seem to interfere with facial muscle function or chewing. The clinical impression was of a cyst. She has recently lost 35 pounds on a liquid diet, which may have prompted the recognition of the tumor.

CASE 7: 64991 (1 slide)
Contributed by Dr. Miguel Simon, San Juna, Argentina.

64-year-old person who developed a mass located in the lateral side of the neck. It was biopsied.

CASE 8: 90-418 (1 slide)
Contributed by Carlos Perez-Mesa, M.D., Ellis Fischel State Cancer Center, Columbia, Missouri.

JD, a 50-year-old Caucasian female with a nodule in the surface of the left side of tongue found during routine follow-up visit to the outpatient clinic.

CASE 9: 90-453 (1 slide)
Contributed by Carlos Perez-Mesa, M.D., Ellis Fischel State Cancer Center, Columbia, Missouri.

HL, a 56-year-old Caucasian male who developed a lesion in the floor of the mouth. It was discovered during a routine physician examination in the follow-up clinic.

CASE 10: 90-590 (1 slide and 1 x-ray)
Contributed by Steven Standiford, M.D., Thomas Coyle, D.D.S. and Carlos Perez-Mesa, M.D., Ellis Fischel State Cancer Center, Columbia, Missouri.

DL, a 34-year-old Caucasian female who visited a dental practitioner because of bad teeth. A biopsy of the lesion and roentgenogram of the specimen are included.
CASE 1: LICHEN PLANUS (89-2373)
Contributed by Drs. Charles Dunlap and Bruce Barker, University of Missouri-Kansas City School of Dentistry, Kansas City, Missouri.

Some of the consultants agree with the diagnosis.

Eusebi from Bologna, "Lichen planus. I do not know how to explain the microgranulomatous reaction present around vessels."

Soares from Lisbon, Portugal, "The changes at the epithelium-corion junction fulfill the criteria to make the diagnosis of lichen planus. The deep perivascular lymphoid infiltrate is unusual as well as the presence of epithelioid cells forming ill-defined granuloma. Could it be associated with auto-immune disease? Is there concomitant sialoadenites?"

Tomich from Indiana commented, "Lichen planus is certainly a consideration. It would definitely be of interest to know the results of immunofluorescent studies, particularly in reference to a diagnosis of chronic discoid lupus erythematosus. There are numerous histiocytes in the perivascular infiltrates which is uncommon in my experience. - It reminds me of the epithelioid histiocytes seen in toxoplasmic lymphadenitis but that is highly unlikely."

White from Kentucky, "Lichen Planus. Black and Newton in Pathogenesis of Skin Disease by Thiers and Dobson talk about perivascular cuffing with lymphocytes in early changes of lichen planus. They cite an article by Ragaz and Ackerman, Am. J. Dermatopathol 3:5, 1981. The histiocytes are probably helping in antigen processing. Have seen similar histology in Candidiasis."

Rowe from Michigan commented, "Have to rule out lupus erythematosus. The club shaped rete ridges combined with deep infiltrate are more compatible with lupus erythematosus then lichen planus. We have had one or two cases just like this one and despite these features called it lichen planus. Where have we gone wrong?"

Weidner from Boston, "I would use a descriptive diagnosis (but only after obtaining as much clinical history as possible) for this lesion, lichenoid stomatitis associated with deep perivascular, granulomatous inflammation (possible variant lichen planus, r/o syphilis)."

Santa Cruz from St. John's Mercy, St. Louis, offered the following, "Lichenoid reaction with unusual dense perivascular lymphohistiocytic component. Upper part is consistent with lichen planus. The lower part, I don't know. Discoid lupus erythematosus?"

Abrams from USC made the following commentary, "I do not believe the deep perivascular inflammation excludes lichen planus as a diagnosis. I sign these cases out as compatible with lichen planus. I think there is a very good probability that this is a lichenoid hypersensitivity reaction."

Donath from Hamburg, "The alterations of the mucous membrane are similar to lichen planus, but I think it is none. The granulomas consist mainly of lymphocytes, small groups of histiocytes and single polynuclear giant cells. The granulomas are mostly located around a blood vessel. I think it is a systemic disease (DD: Melkersson-Rosenthal Syndrome; Morbus-Crohn)."
Fantasia and Sciubba from Stony Brook commented, "We felt that while the pattern was essentially that of lichen planus, we were struck by the cellular features of the infiltrate with the presence of fibrinoid. The features of lupus, lichen planus and sarcoid were also evident however. We therefore felt that appropriate studies should be done to rule out sarcoid and also to consider whether or not lupus was present. In a descriptive sense therefore we choose to call this a lichenoid type reaction with associated non-caseating granulomas of the sarcoidal type."

Many other opinions were expressed following similar lines including, premycotic phase of mycosis fungoides, atypical lymphoid infiltrate, etc.

The contributors offered the following.

"This patient was said to clinically have oral lesions that were classic for lichen planus. Striae were present. I trust the judgement of this clinician who is quite experienced. The peculiar aspect of this case is the deep perivascular lymphocytic infiltrate. The patient was otherwise well and had no symptoms that would suggest lupus.

CASE 2: KERATOCYST, ATYPICAL (89-2735)
Contributed by Drs. Charles Dunlap and Bruce Barker, University of Missouri-Kansas City School of Dentistry, Kansas City, Missouri.

Hille, Kalan and Horn, Western Cape University from South Africa commented, "Most likely to be epidermoid inclusion cyst (implantation?) with an area suggestive of verrucous hyperplasia."

Waldron from Georgia, "A very unusual keratinizing odontogenic cyst with what looks like some daughter cysts. There is a suggestion that this may be an "altered" odontogenic keratocyst, and I would like to rule out the presence of the basal cell nevoid carcinoma syndrome. In a few areas one might worry about the outside possibility that this represents a verrucous carcinoma arising in an odontogenic cyst similar to the case reported by Enriquez et al Oral Surg Oral Med Oral Path 1980,49:151-6, but I won't go that far on this one slide."

Sprague from Nebraska offers, "Verrucous carcinoma arising in an odontogenic keratocyst."

Among others, Hori from Raton, New Mexico, Azar from Tampa, Toto from Loyola, Brandwein from Mount Sinai, New York, Donath from Hamburg called it keratocyst.

Weathers from Emory commented, "This appears to be a verrucous hyperplastic change in a cyst lining. I do not know that I could call this a verrucous carcinoma but it is certainly consistent with an incipient change which might lead to such a diagnosis. I wonder if this was an OKC at one time. We have seen an example of what we called a verrucous carcinoma arising in a cyst but it was better developed than this. I think this is certainly on its way toward a verrucous carcinoma."

The contributors offered the following commentary.

This case was presented because the verrucous change within the lining of a keratocyst was histologically peculiar but we make nothing more of it. We don't believe this has any bearing on prognosis.
CASE 3: PEMPHIGUS VULGARIS (CLINICAL PHOTO ONLY - NO SLIDE)
Contributed by Drs. Charles Dunlap and Bruce Barker, University of Missouri-Kansas City School of Dentistry, Kansas City, Missouri.

Waldron from Georgia commented, "I suspect Charlie and Bruce have something up their sleeves here. From the photo alone, I would suspect acute herpes but the history is not clear as to whether she has looked like this for six weeks which would not be consistent with herpes. In other words, I don't know and will be anxious to hear what this is."

Soares from Lisbon commented, "No idea!!"
Santa Cruz from St. John's and Kyriakos from Washington University offered "Red mouth disease."

Weathers from Emory commented, "Almost every differential diagnosis that I considered could not be supported with the history given. The clinical picture itself is certainly very consistent with a primary herpetic gingival stomatitis but the duration as given is too long for this. It really does not look as sharply demarcated and the distribution is poor for mucoepithelial dysplasia. Some sort of intermittent blood dyscrasia such as ITP or cyclic neutropenia might also be a consideration. I eagerly look forward to the histopathology."

Hansen from San Francisco offered, "Vesiculobullous disease. Favor pemphigoid."

El-Mofty from Washington University, "The patient should be evaluated for Crohn's disease. Wegener granulomatosis, HIV infection etc."

Turner and Kahn from Tennessee offer, "Stomatitis venenata."

Hammond, Vincent, Benjamin, Hellstein and Kurago from Iowa offered, "Contact allergy. The fad is now idiosyncratic reaction to cinnamon aldehyde."

The contributors made the following commentary:

The clinical photo we sent was of pemphigus vulgaris of the gingiva in a 24 year old female. This was a very unusual presentation. The patient has yet to develop skin lesions and is being managed with Cyclophosphamide and Prednisone. It is my understanding that she still has some evidence of oral disease even with this aggressive regimen.

CASE 4: MUCOEPIDERMOID CARCINOMA, INTERMEDIATE GRADE (90-3758)
Contributed by D. L. Dawson, M.D., Penrose Hospital, Colorado Springs, Colorado.

Mucoepidermoid carcinoma was the most popular diagnosis, however, the degree of differentiation was evenly divided between low and intermediate grade.

Kyriakos from Washington University commented, "Mucoepidermoid carcinoma with emphasis in the "muco". I do not think this is acinic cell carcinoma."

Abrams from USC commented, "Mucoepidermoid carcinoma. This is a nice example to show the clear cell component."

Mucoepidermoid carcinoma was also the diagnosis of Cardona Lopez from Honduras.

Weidner from Boston, "Low-grade mucoepidermoid carcinoma. I like Evans' grading scheme for mucoepidermoid tumors of the salivary glands (see AJCP 1984;81:696-701). I believe greater than 10% of the tumor area (at least in my slide) is cystic, hence qualifying this lesion as low grade. It has been a while since I've seen a Penrose slide; my regards to Don Dawson."
Hammond and Associates from Iowa, "Mucoepidermoid carcinoma. Most favored intermediate-grade, some low-grade."

Freedman, Kerpel, Lumerman from Flushing, New York commented, "Mucoepidermoid carcinoma, low grade."

Dr. El-Mofty from Washington University who discussed the case during the proceedings made the following commentary: "There were some who called it adenocarcinoma NOS. It seems to me that this is a very unusual salivary tumor which shows the combined features of mucoepidermoid and acinic cell carcinomas. The predominant cell type was nonspecific glandular with microcystic structures, consistent with the majority of acinic cell carcinoma of minor salivary glands. The mucous cell component was not a dominant feature and I was unable to identify typical squamous cells. The tumor also showed a clear cell component which is common to both mucoepidermoid and acinic cell carcinoma. In general I felt that the tumor shows features of both acinic cell carcinoma and mucoepidermoid carcinoma."

CASE 5: ADENOCARCINOMA, PRIMARY BREAST (S90-2123)
Contributed by Ronald W. Oxenhandler, M.D., Memorial Hospital, Chattanooga, Tennessee.

There was some diversity of opinions including histogenesis. A few commentaries at random.

Waldron from Georgia, "Adenocarcinoma probably arising from the sinus mucosa. It has some oncocytic features and I suspect may qualify as an oncocytic carcinoma but I would probably sign it out as just adenocarcinoma. From the scans it appears to be an extensive lesion. I gather the tumor was only debulked but I fear I couldn't say how effective radiation therapy might be. It may be worth a try as opposed to a hemi-headectomy."

Hammond and Associates from Iowa commented, "Adenocarcinoma consistent with sebaceous adenocarcinoma, probably metastatic. We cannot comment on the treatment that will be involved."

Freedman, Kerpel, Lumerman from Flushing commented, "Malignant glandular tumor. There are areas that suggest epidermoid differentiation in addition to ducts and clear cells. The possibility of a high grade mucoepidermoid carcinoma should be considered. In any case, we believe the patient should be treated as if this is a fully malignant tumor."

Kyriakos from Washington University, "Suggest this is metastatic carcinoma and looks like breast cancer. However, the request for opinion suggests patient has no history of prior breast carcinoma. Next choice based on tumor's appearance was possible neuroendocrine (carcinoid) tumor, again probably metastatic, but cannot rule our primary. You could do marker studies for neuroendocrine differentiation. It sure does look like breast carcinoma."

Turner and Kahn from Tennessee commented, "Poorly differentiated adenocarcinoma, rule out metastasis."

Santa Cruz from St. John's Mercy, "Carcinoma, probably metastatic. Possible primary site: breast. It has also a neuroendocrine flair."

Brandwein from Mount Sinai, New York, "High grade adenocarcinoma. This tumor could certainly pass for breast ductal carcinoma. It also looks like large duct salivary adenocarcinoma. I've never seen a sinus primary carcinoma look like this."
Eusebi from Bologna, "Invasive adenocarcinoma. Metastasis has to be excluded."

Weidner from Boston, "Invasive adenocarcinoma (poorly differentiated), rule out metastasis (possibly of breast origin) before calling it primary."

Azar from Tampa commented, "Poorly differentiated adenocarcinoma. Suggest radiotherapy."

Follow-up: In 1987 the patient had a right modified radical mastectomy for a poorly differentiated adenocarcinoma, infiltrating ductal type (2.5 cm. in diameter) with intramammary lymphangitic spread and 13 negative axillary nodes. Both maxillary and original breast tumors have the same DNA pattern; both were tetraploid.

CASE 6: WELL DIFFERENTIATED LIPOSARCOMA (S90-49)
Contributed by Ellis A. Ingram, M.D., University of Missouri-Columbia Hospital and Clinics, Columbia, Missouri.

The overwhelming majority of the consultants agreed with the diagnosis of liposarcoma.

Brandwein from Mount Sinai, New York commented, "Well differentiated liposarcoma. That'll teach her to diet."

As an appendix, there is a letter that Dr. Azumi (AJSP 11;161,1987) expressed his opinion concerning the nature of this tumor.

CASE 7: SPINDLE CELL MELANOMA (64991)
Contributed by Dr. Miguel Simon, San Juan, Argentina.

The majority of the consultants considered the multiple possibilities in the histogenesis of spindle cell tumors which include among others, leiomyosarcoma, sarcomatoid squamous cell carcinoma, atypical fibroxanthoma, synovial sarcoma, fibrosarcoma, etc., etc.

El-Moffy from Washington University and Santa Cruz from St. John's Mercy Medical Center called it malignant melanoma; the latter offered "Neurotropic melanoma with focal lentigo maligna."

Dr. Kyriakos from Washington University performed immunostained sections with the following results: vimentin and S-100 positive; negative HMB-45, Leu-7, desmin, muscle specific actin and cytokeratin. The results are consistent with a spindle cell melanoma. According to Mark Wick, the melanin stain HMB-45 is frequently negative in cutaneous spindle cell melanomas."

CASE 8: METASTATIC CARCINOMA TO THE TONGUE FROM ADVANCED CARCINOMA OF THE UTERINE CERVIX (90-418)
Contributed by Carlos Perez-Mesa, M.D., Ellis Fischel State Cancer Center, Columbia, Missouri.

The metastatic nature was suspected by some. This case was chosen since clinical metastasis to the tongue from carcinomas of the cervix are rare.
CASE 9:  **BASALOID SQUAMOUS CELL CARCINOMA (90-453)**
Contributed by Carlos Perez-Mesa, M.D., Ellis Fischel State Cancer Center, Columbia, Missouri.

To the embarrassment of the contributor, a week before the proceedings of the discussion, it was determined after careful consideration that the coexisting carcinoma of the lung represented a metastasis from a basaloid carcinoma of the tongue.

A few comments:

Weidner from Boston, "My slide is not well stained, but the findings are most consistent with a poorly differentiated carcinoma, possibly basaloid type."

Abrams from USC comment, "Basaloid squamous cell carcinoma."

It was also the diagnosis of Azar from Tampa.

The patient died two months after the biopsy. No autopsy was done.

CASE 10:  **LEIOMYOSARCOMA (90-590)**
Contributed by Steven Standiford, M.D., Thomas Coyle, D.D.S. and Carlos Perez-Mesa, M.D., Ellis Fischel State Cancer Center, Columbia, Missouri.

Freedman, Kerpel, Lumerman from Flushing, New York, Kyriakos from Washington University, Soares from Lisbon considered strongly the possibility of leiomyosarcoma. Trichrome stain was strongly suggestive of muscular origin. Subsequently immuno stains were performed confirming the diagnosis of leiomyosarcoma. A partial hemimandibulectomy was performed giving the opportunity of further confirmation of the diagnosis. Two months after surgery the patient developed local recurrence necessitating the removal of the rest of the mandible with the neighboring soft tissue.

Leiomyosarcoma of the mandibular bone is so rare, at least in the medical literature, that if any of the consultants have a similar case it would be useful to put the cases together for a publication.
February 2, 1990

Ellis A. Ingram, M.D.
Department of Pathology
University of Missouri-Columbia
M263 Health Science Center
Columbia, Missouri 65212

RE: Lister, Dorothy
Your S90-49

Dear Dr. Ingram:

I am sorry for the delay of this report. Because I moved to the Georgetown University School of Medicine last year, the case finally reached me via the City of Hope National Medical Center just few days ago.

This proved to be a fascinating and very difficult case. Sections of the tumor resected from the cheek of the above-named patient show a well circumscribed tumor nodule composed of mixture of mature fatty tissue, numerous multivacuolated lipoblasts, and several foci of cellular areas composed of polygonal to spindle cells without cytoplasmic vacuoles. Although mitotic figures are not abundant, occasional foci contain scattered mitotic figures. Not much normal tissue is attached to the tumor nodule; however, few bundles of unremarkable skeletal muscle are evident indicating the tumor involves at least a part of the muscular tissue of the cheek. As you have indicated in your letter, I certainly agree with you that there are several findings such as well-circumscription, presence of mature fatty tissue, relative paucity of mitosis, and lack of arborizing vessels and prominent myxoid background, which are all in keeping with the diagnosis of atypical lipomas. The appearance of the cellular component, however, is different from that of atypical lipomas. Atypical lipomas usually show features of spindle cell lipomas and/or pleomorphic lipomas or occasional lipoblasts in otherwise typical benign lipomas. One case we described in our previous study is very similar to your case in terms of the location, but this case showed typical appearance of pleomorphic lipomas.

Therefore it is difficult for me to predict the biological behavior of this atypical lipomatous neoplasm; however, I suspect this tumor will behave in a relatively indolent fashion; it may recur locally but the likelihood of metastasis may be small.
In terms of what kind of label should be put on to this lipomatous neoplasm is partially semantic in my opinion. Although I will classify this tumor "atypical lipoma" with caution that the lesion should be carefully followed and if there is a recurrence, definitive surgery should be performed at that time. I do not have any doubt that many experts will diagnose this tumor as "well-differentiated liposarcoma". As we discussed in our previous publication, when terms such as "atypical lipoma" and "well-differentiated liposarcoma" are used for the well-differentiated fatty neoplasm, we acknowledge the tumor showing the same biological behavior (i.e. it may be locally recurrent but not metastasizing), despite the significantly different impression these two labels may convey. In any rate, the more cellular and atypical appearance present in the current case will certainly warrant more careful follow-up than "typical" atypical lipomas.

Thank you very much for letting me review this fascinating case. I would appreciate any follow-up information you may have regarding this case.

Sincerely,

Norio Azumi, M.D.

P.S. I kept one slide (#2) in my file. If this is not feasible, please let me know.
"OFFICIAL DIAGNOSIS"

CASE 1: BENIGN FIBROUS HISTIOCYTOMA OF BONE
Contributed by Samir El-Mofty, D.M.D., Ph.D., and Michael Kyriakos, Department of Surgical Pathology, Washington University School of Medicine, St. Louis, MO.

Several of the consultants agree with his diagnosis.

ABRAMS from U.S.C. commented. Xanthoma seems to be a decent term for this lesion. It appears to represent a xanthomatous lesion which HARISAYE N. LARSSON called "Non-X Histocytosis or benign fibrous histiocytoma (Oral Surg, Oral Med, Oral Pathol. 65-551, 1988).

FREEDMAN, KERPEL AND LUMMERMAN from Flushing commented, "Based on the presence of large histiocytic cells containing a foamy, somewhat wrinkly cytoplasm. We favor a diagnosis of Gaucher's disease. The radiograph shows in addition to the well defined lesion, a "step-ladder" type of trabeculation suggesting expansion of the narrow space by some process.

SANTA CRUZ from St. Louis commented, "Curious lesion, histologically benign, but radiologically aggressive."

BAUGHMAN & JONES from Gainesville, Florida offer fibroxanthoma of bone, however, a reticuloendotheliosis such as Gaucher's disease should be ruled out.

HAMMOND, FINKELSTEIN, et al, from Iowa interpreted it as "xanthoma of bone."

HANSEN and his group from UC at San Francisco offered, "If representative, fibroxanthoma of bone versus xanthogranuloma. Rule out lipid storage disease." Fibroxanthoma was also favored by SCIUBBA & FANTASTA from Stonybrook of Long Island, also interpreted lesion of fibroxanthoma. (Several other consultants offer various diagnosis', including myxoma, chronic sclerosing osteomyelitis, lipid storage disease.)

CASE 2: PLEOMORPHIC ADENOMA WITH CELLULAR ATYPIA
Contributed by Charles E. Tomich, D.D.S., M.S.D., Department of Oral Pathology, Indiana University, Indianapolis, Indiana.
DR. TOMICH commented, "Pleomorphic adenoma with marked nuclear atypia." We would like to know how all of the consultants would interpret this case." The patient is currently doing well, although the follow-up time is still short. I suppose the basic question is; does the nuclear atypism warrant a malignant diagnosis, despite the presence of a capsule and a lack of an infiltrative growth pattern.

Approximately one-third of the consultants agreed in general terms with the diagnosis. A few comments at random.

WIDNER, formerly from Boston, Mass. and presently from San Francisco, CA, favor monomorphic adenoma with degenerative, nuclear atypia;

ABRAMS from USC, "I have seen this type of lesion a few times before and have been puzzled by it. I cannot ignore the unusual nuclear pleomorphism. Therefore, I will label this as a mixed tumor with early malignant transformation."

BAUGHMAN & JONES from Gainesville, "Pleomorphic adenoma exhibiting dysplastic features; this lesion may represent a borderline malignancy."

WALDRON from Georgia, "Mixed tumor (pleomorphic adenoma) with some strange large cells. I feel it is benign."

EL-MOFTY from St. Louis, "Cytologically disturbing salivary tumor, but most likely biologically benign, (a paper tiger)."

WEATHERS from Emory, "Several times over the years, I have pleomorphic adenomas with a markedly atypical and bizarre giant cells, but unfortunately, we have been unable to follow the patients to see what the outcome was. I have the impression that in spite of the cellular atypia, primarily, because of the obvious encapsulation, that this will not be an aggressive tumor. One could speculate that this were degenerative changes, or perhaps, the beginning of a carcinoma expleomorphic adenoma."

HANSEN from San Francisco, CA, "Atypical mixed tumor, may have areas of carcinoma. No further treatment at this time, but recommend careful clinical follow-up."

Other diagnosis included dermal analogue tumor; ductal carcinoma, monomorphic adenoma, (benign or malignant), adenocarcinoma low grade, basal cell adenocarcinoma, metastasis of a paraganglioma, etc.

CASE 3: SPORADIC MEDULLARY THYROID CARCINOMA, AMYLOID POOR
Contributed by Margie Brandwein, M. D., Department of
Pathology, Mount Sinai School of Medicine, New York, N.Y.

Many consultants agree with the diagnosis. WIDNER from San Francisco, "Although the tumor has a ependymomalike features, I believe this tumor will prove to be a medullary carcinoma with pseudopapillary morphology. FREEDMAN, et al, from Flushing, "This tumor represents an unusual variant of medullary carcinoma of the thyroid." The Iowa group of HAMMOND, et al, DAWSON from Colorado Springs, WHITE from Kentucky, KYRIAKOS from St. Louis, TOMICH from Indiana and others also call it medullary carcinoma with various modifiers. CARDESA from Barcelona, CARDONA from Honduras and AZAR from Tampa also offer the diagnosis of medullary carcinoma.

BRANDWEIN commented, "This tumor was calcitonin positive and furthermore, her serum calcitonin was elevated post-operatively indicating residual and metastatic disease. This is a case of "sporadic" medullary thyroid carcinoma, amyloid poor. This variety may be confused with oat-cell carcinoma as had been considered here. Other diagnosis included, parathyroid carcinoma, paraganglioma, angiosarcoma."

CASE 4: MENINGIOMA OF THE NASAL CAVITY
Contributed by Professor Or. A. Cardesa, Catedrático De De Anatomia Patologica, De La Universidad De Barcelona, Barcelona, Spain.

About one-third of the consultants agree with the diagnosis including FREEDMAN, KERPEL AND LUMERMAN from Flushing, N.Y., PINKELSTEIN, VINCENT, DEHL, BEST, BENJAMIN, HELLSTEIN, HESS, KURAGO, MANGANERO AND HAMMOND from Iowa; WHITE from Kentucky; EL-MOPTY, KYRIAKOS AND SANTA CRUZ from St. Louis. TOMICH from Indiana, AZAR from Tampa, QIN-XI from Gungzhu, People Republic of China. OXENHANDLER from Tennessee.

CASE 5: IRRADIATION INDUCED SARCOMA WITH AREAS OF RHABDOMYOSARCOMA
Contributed by Dr. Douglas Gnepp, M.D., St. Louis University Medical Center, St. Louis, MO.

The overwhelming majority interpreted the lesion as rhabdomyosarcoma with various qualifiers. A few commentaries, WIDNER from San Francisco, "Looks like rhabdomyosarcoma now. When present simultaneously, tumor combinations of neuroblastoma and rhabdomyosarcoma are called malignant ectomesenchymoma (CANCER 59:1791, 1987). When one appears subsequent to the other, I am not sure what the literature in the case. FREEDMAN, KERPEL AND LUMERMAN, "Although there is a previous history of esthesioneuroblastoma, we don't believe this is a recurrence of that tumor. Instead, we favor a diagnosis of post irradiation sarcoma, probably rhabdomyosarcoma. SCIUARRA and FANTASIA, "Differentiated sarcoma, possibly arising from an esthesioneuroblastoma. The question of a malignant triton tumor was raised, however, we were not impressed by the multiple components that one would expect to see in the latter. AZAR from Tampa commented
"Where some areas retain the appearance of a neuroblastoma with the presence of neuropil, the vast portion of this tumor is represented by a spindle cell growth. There are also scattered cells with deeply eosinophilic cytoplasm which may represent myoblasts. It is tempting to speculate that a transformation into a malignant triton tumor has occurred in an olfactory neuroblastoma". SIMON AND ASSOCIATES from Argentina interpreted the lesion as triton tumor: it would be interesting to know if the patient had an associated neurofibromatosis."

CASE 6: MENINGIOMA
Contributed by Cardona Lopez from Honduras.

There was generally uncertainty concerning the diagnosis, which among others, include spindle-cell melanoma, sarcomatoid carcinoma of tonsil, malignant schwannoma; peliocell sarcoma; squamous cell carcinoma; fibrohistiocytoma; giant cell tumor; puzzling case, I don't know; A follow-up of this case will be obtained and as well, the result of immuno stains.

CASE 7: THYMIC CYST OF THE NECK
Contributed by Virgilio Cardona Lopez, M.D., Tegucicalpa, D.C., Honduras, C.A.

With minor variations, the diagnosis of thymic cyst was the favorite choice. Other diagnosis' include bronchial cleft cyst; manipulated bronchial cleft cyst; inflamed disgenetic cyst with cholesterol granuloma; congenital cyst "teratoid" lesion.

CASE 8: PIGMENTED OR MELANOTIC NEUROECTODERMAL TUMOR OF INFANCY
Contributed by Drs. Beatty, Swick and Dunlap, University of Missouri-Kansas City School of Dentistry, Kansas City, MO.

There were a few dissenter.

CASE 9: EPITHELIAL-MYOEPITHELIAL CARCINOMA
Contributed by Dr. Bruce Barker, University of Missouri-Kansas City School of Dentistry, Kansas City, MO.

A great percent of the consultants agree with the diagnosis. SANTA CRUZ from St. Louis, "Salivary adenocarcinoma (epithelial myoepithelial carcinoma?). GNEPP from St. Louis University commented, "Low grade adenocarcinoma. It best fits into the epithelial carcinoma category." SCIUBBA and FANTASIA from Long Island, HANSEN from San Francisco offered "Epimyoepithelioma carcinoma of the intercalated duct origin."
TOMICH from Indiana offered, "Adenocarcinoma. It has features suggestive of an epithelial myoepithelial carcinoma, (Donath-Seifert). DONATH from Hamburg commented, "It is a malignant epithelial tumor of salivary glands, which shows a perineural sheath and perivascular invasion. I will call it adenocystic carcinoma of tubular and solid differentiation." HORI from New Mexico and AZAR from Tampa also considered the diagnosis of adenoid cystic carcinoma. ABRAMS from USC offered, "I believe this is a variant of mucoepidermal carcinoma. We have seen several of these tumors in the tongue." WEATHERS from Emory, "Although several subtypes of adenocarcinoma were considered, we fell that adenocarcinoma NOS is the best designation since we had to work too hard to plug it into any other category. WALDRON, also from Emory commented, "Adenocarcinoma of salivary gland origin. It would be nice to see a mucin stain, but I suspect the clear cells are non-mucin positive. This is a bit out of my range for an epimyoepithelial carcinoma, nor it is my idea of the polymorphus low grade adenocarcinoma either."

CASE 10: MULTIPLE MUCOUSAL NEUROMAS (MEN III)
Contributed Dr. Charles Dunlap, University of Missouri-Kansas City School of Denistry, Kansas City, Missouri.

No dissensions in the diagnosis, however, some call it Type II-B or III.