CASE #1  
(S85-44973 with photo)  
This is a 74 year old female with a lesion located in the central maxilla producing a gradual swelling of the area making prominent the upper lip. A roentgenogram of the lesion is included. The material rendered from the lesion has the appearance of "frog eggs".

CASE #2  
(S85-4699, two slides)  
Contributed by Douglas Gnepp, M.D., Department of Pathology, St. Louis University Medical Center, St. Louis, Missouri.  
A 76 year old woman with a six week history of a palatal lesion adjacent to her dentures.

CASE #3  
(S84-2504 with photo)  
Contributed by Douglas Gnepp, M.D., Department of Pathology, St. Louis University Medical Center, St. Louis, Missouri.  
A 52 year old male with a superficially invasive carcinoma of the palate and a mass of the tongue. The glass slide is from the tongue mass; the kodachrome is from an area of the mucosal surface of the tongue tumor. This was the only mucosal focus.

CASE #4  
(S85-7458, two slides)  
Contributed by Noel Weidner, M.D., Department of Pathology, Bowman-Gray School of Medicine, Wake Forrest University, Winston-Salem, North Carolina.  
A 79 year old white female with a fungating lesion of the right buccal mucosa.

CASE #5  
(S85-922)  
Contributed by Charles Dunlap, D.D.S. and Bruce Barker, D.D.S., Department of Oral Pathology, University of Missouri-Kansas City, School of Dentistry, Kansas City, Missouri.  
A 26 year old male had a gingival mass thought to be a giant cell granuloma. There was no mention of radiographic abnormalities.
CASE #6 (85-1561)
Contributed by Charles Dunlap, D.D.S. and Bruce Barker, D.D.S.,
Department of Oral Pathology, University of Missouri-Kansas City,
School of Dentistry, Kansas City, Missouri.

A 52 year old woman with a gingival lesion in area of teeth #7 & #8,
slowly enlarging but nonpainful. History of radiation treatment for
acne during her youth.

CASE #7 (85-1687)
Contributed by Charles Dunlap, D.D.S. and Bruce Barker, D.D.S.,
Department of Oral Pathology, University of Missouri-Kansas City,
School of Dentistry, Kansas City, Missouri.

A 37 year old female with a "rash" on dorsal tongue including the tip.
She also had a small (less than 1.0 mm) painful nodule adjacent to the
rash. Your biopsy shows both areas.

CASE #8 (S-85-0424,1 & S-85-0424,2 with photos)
Contributed by Harold L. Hammond, D.D.S., Department of Oral
Pathology, The University of Iowa, College of Dentistry, Iowa City,
Iowa.

An 82 year old female of unstated racial group with recurrence of a
right maxillary tumor. The lesion had been diagnosed as an
ameloblastoma at the initial resection 10 years ago. Physical
evaluation at this time revealed no evidence of other neoplasms and a
right radical maxillectomy was done.

Two tissue slides, representative of the current lesion, are included.
The histopathologic features of the initial lesion and this recurrence,
in the opinion of those who have examined both, are essentially
identical.

Three photomicrographs, representative of Mayer's mucicarmine,
periodic acid-Schiff, and periodic acid-Schiff/diastase staining, are
also included. Areas of both mucicarmine and P.A.S. positive
staining are present. Some of the P.A.S. positive material is diastase
labile.

CASE #9 (D-252-83)
Contributed by Albert M. Abrams, D.D.S., Department of Pathology,
University of Southern California School of Dentistry, Los Angeles,
California.

The slides represent a mandibular lesion in a twenty-eight month old
girl. The lesion is a predominately well demarcated radiolucency
extending from near the coronoid notch anteriorly to about the
deciduous first molar. There is slight suggestion of multi-loculation.
The incompletely formed permanent first molar is "floating" in the
radiolucency. Localized perforation of the inferior cortex is evident.
On a somewhat distorted panographic film, the lesion measures approximately 6.5 x 4.0 cm. The clinician described marked facial swelling which was asymptomatic.

CASE #10  
(85-909)  
Contributed by Robert C. Ahlvin, M.D., Department of Pathology, Missouri Delta Community Hospital, Sikeston, Missouri.

A 33 year old caucasian female noticed about 1 year ago swelling in her right cheek. The lesion was excised with the margin of normal tissue. Representative sections are included.

CASE #11  
(S-5019-85 with photo)  
Contributed by Richard Komorowski, M.D., Department of Pathology, Milwaukee County Medical Complex, Milwaukee, Wisconsin.

A 50 year old black male with a well known history of polymyositis admitted to the Medical College of Wisconsin Neurology Service in January 1985 complaining of acute pain in the right posterior mandible and acute malocclusion. Roentgenograms done on January 18, 1985 revealed a pathological fracture to the right ramus of the mandible secondary to a large lytic lesion. Laboratory studies were not contributory. An attempt to biopsy the lesion of the right ramus was unsuccessful. On March 15, 1985 roentgenograms showed a lytic lesion of the left ramus, resorption of the left coronoid process and degeneration of the left condyle head. A biopsy was refused by the patient. On June 20, 1985 a panorex showed continued resorption of the right condylar head and right body of the mandible and persistent resorption of the left coronoid tip and condyle. A biopsy was obtained. In the photo of the roentgenograms the progressive nature of the lesions can be appreciated. The slide represents the biopsy on the left mandibular ramus.
"OFFICIAL" DIAGNOSIS

CASE #1  Chondrosarcoma (S83-44973)

The diagnosis of chondrosarcoma from low grade, well differentiated to poorly differentiated were the most popular. The qualifying "myxoid" was favored by some.

A few opinions at random were selected.

Donath from Hamburg, "Low-grade chondrosarcoma (invasion of soft tissue and the age of the patient)."

Abrams from University of Southern California, "Chondrosarcoma. (because of the "frog eggs" appearance maybe this is a ranula variant?)".

Tomich from Indiana, "We interpret this as a myxoid chondrosarcoma of the maxilla."

Finkelstein, Vincent, Deahl, Lundquist, Watson and Hammond from Iowa, "Myxoid chondrosarcoma."

Meyer and associates from St. Luke's Hospital, Chesterfield, Missouri, "Chondrosarcoma (5 votes). One dissenter suggested chondroma, but he did not wish to be quoted."

Pindborg and Reibel from Copenhagen and Hori from West Virginia, "????"

Hansen from San Francisco, "We could not reach any agreement as to the nature of the blue-staining material. We debated whether it was chondroid or mucoid and therefore came up with the variety of diagnoses such as antral mucocèle, chondroma, chondrosarcoma, etc. I personally favor some sort of a cartilagenous neoplasm but that's as far as I can take it."

Xi from Zhongshan, The People's Republic of China, "Chondrosaroma or chordoma."

Azzopardi from London, "I think this is a chondroma with the usual reservations about cartilaginous tumours of bone in unusual sites."

White from Kentucky, "Chondrosarcoma. Thought about Chordoma but do not see syncytial strands or good physaliferous cells."

Waldron and El-Mofify from Washington University, "Histologically we feel this makes a decent chordoma but the apparent (from the x-ray) anterior maxillary location present a problem. My experience with this lesion is essentially nil but I believe chordomas have been rarely found in the maxilla and mandible from ectopic notochordal remnants. I suspect a very unusual chondrosarcoma might be included in the differential but the histology certainly suggests a chordoma to us."

This lesion because of the age of the patient and its location has been treated conservatively; a followup will be given in a few months.
CASE #2  Ductal carcinoma possibly arising in a mixed tumor (S85-4699)
Contributed by Douglas Gnepp, M.D., Department of Pathology, St. Louis University Medical Center, St. Louis, Missouri.

About one-third of the consultants agree with the "official" diagnosis.

Eusebi from Bologna, "Malignant mixed tumor".
Tarpley from Georgetown University, "Adeno Carcinoma (note: may be arising in a mixed tumor)".
Azar from Tampa, "Carcinoma arising in or associated with pleomorphic adenoma".
Tomich from Indiana, "This is a difficult case because of the fragmentation of the specimen. However, we suspect adenocarcinoma ex pleomorphic adenoma."
Abrams from University of Southern California, "Cautery effect makes interpretation very difficult and hazardous. I will call it carcinoma ex mixed tumor."
Donath from Hamburg, "Carcinoma in a pleomorphic adenoma".
Azzopardi from London, "This is a very difficult mucous gland carcinoma of dimorphic structure which, in my view, does not easily fit into any of the well recognized types of mucous gland carcinoma. It is not ACC or PLGA; it could be called "malignant mixed tumour", but there are features which do not fit this diagnosis."
Sciubba and Kahn from Long Island, "An unusual type of bi-phasic salivary gland malignancy, but classified as an epithelial-myoepithelial carcinoma."

There were some who interpreted this lesion as adenocarcinoma, NOS, arising in a minor salivary gland.

A minority of opinions include tubular carcinoma, polymorphic low grade adenocarcinoma, adenocarcinoma rule out metastases, metastatic adenocarcinoma.

Weidner from Wake Forest commented, "This lesion appears to be a variably differentiated carcinoma, predominantly adenomatous. I believe it will behave aggressively, and should be treated accordingly."

CASE #3  Ductal carcinoma, adenosquamous (S84-2504)
Contributed by Douglas Gnepp, M.D., Department of Pathology, St. Louis University Medical Center, St. Louis, Missouri.

Waldron and El-Molfy from St. Louis, "Adenosquamous carcinoma. On the basis of the 2 x 2 kodachrome slides submitted together and the glass slide, we believe this is an example of the tumor described by Gerughty-Cancer 22:1140, 1968."
Abrams from University of Southern California, "Adenosquamous carcinoma".
Sciubba and Kahn from Long Island prefer, "Salivary duct carcinoma".
Weathers from Emory, "Adenocarcinoma. There is some suggestion that this may represent an adenosquamous carcinoma."
Toto from Loyola, "Adenocarcinoma, terminal duct".

There were many who interpreted the lesion as an adenocystic carcinoma including Azzopardi from London, Donath from Hamburg, Cherwitz and Wick from Minneapolis, Eusebi from Bologna, residents from San Juan, Argentina. The possibility of being a metastatic tumor was entertained by Oxenhandler from Chattanooga, Pindborg and Reibel from Denmark, Xi from Zhongshan.

Tarpley from Georgetown, "Adeno Carcinoma - Pattern and growth with necrosis, rule out metastatic carcinoma, adenoid cystic carcinoma".

CASE 84

Verrucous-squamous (hybrid) carcinoma (85-7458)

Contributed by Noel Weidner, M.D., Department of Pathology, Bowman-Gray School of Medicine, Wake Forest University, Winston-Salem, North Carolina.

The majority of the consultants interpreted the lesion as verrucous carcinoma; Le Gal from Strasbourg, Abrams from University of Southern California, Azzopardi from London, Sciuubba and Kahn from Long Island were among those who offered such a diagnosis.

A few other opinions:

Waldron and El-Molfty from St. Louis, "Papillary low-grade squamous cell carcinoma vs verrucous carcinoma. We favor the former but anticipate there will probably be some differences of opinion."

Tomich from Indiana, "Although there are areas suggestive of verrucous carcinoma of Ackerman, we favor a diagnosis of well-differentiated papillary epidermoid carcinoma."

White from Kentucky and Toto from Loyola call it, "Papillary squamous cell carcinoma".

Weathers from Emory, "Papillary well-differentiated squamous carcinoma. I can't quite call this verrucous carcinoma. It will be very difficult to separate this from a condyloma accuminata."

Pindborg and Reibel from Denmark commented, "Verrucous carcinoma or verrucous hyperplasia with epithelial dysplasia. Difficult to decide (VC/VH) due to lack of a border-zone with normal epithelium."

Hansen from San Francisco, "I believe that this is what Medina and Luna might call a verrucous-squamous carcinoma. We would call this proliferative verrucous leukoplakia, grade 8, providing the clinical features were consistent, i.e., multiple and/or diffuse lesions of long-standing."

Cherwitz and Wick from Minneapolis call it, "Well differentiated squamous cell carcinoma, papillary."

Sprague from Nebraska commented, "Atypical verrucous carcinoma (verruciform carcinoma). The histomorphology of this lesion is somewhat unusual."

The bibliography is as follows:

CASE #5  Peripheral calcifying epithelial odontogenic tumor (85-922)
Contributed by Charles Dunlap, D.D.S. and Bruce Barker, D.D.S.,
Department of Oral Pathology, University of Missouri-Kansas City,
School of Dentistry, Kansas City, Missouri.

The greater majority of the consultants agree with this diagnosis.

A few opinions at random.
Tomich and associates from Indiana, "Peripheral (extraosseous)
calcifying epithelial odontogenic tumor".
Hori from West Virginia, "Calcifying epithelial odontogenic tumor-type IV".
Azar from Tampa, "Extraosseous (gingival) calcifying epithelial odonto-
genic tumor.
Tarpley from Georgetown, "Extraosseous Pindborg".
Eusebi from Bologna, "Pindborg's tumour".
Azzopardi from London, "Extraosseous Pindborg tumour, if amyloid
present".
Reibel and Pindborg from Copenhagen, "We believe this is a CEOT
despite the formation of dentinoid/osteoid which is not usually seen
in this tumor. We assume thioflavine T is positive?"
Donath from Hamburg and Scuibba and Kahn from Long Island,
"Peripheral odontogenic fibroma".
Le Gal from Strasbourg prefer, "Ameloblastic fibroma" while Xi from
Zhongshan prefer, "Ameloblastic fibro-odontoma". Meyer from St.
Louis agrees with the latter and comments, "I suggest the term
"ameloblastic fibro-odontoma", since I believe it contains tooth matrix
as well as odontogenic epithelium and stroma."

Other diagnoses include pleomorphic adenoma, trabecular adenoma and
ameloblastoma.

CASE #6  Atypical epithelial proliferation suggestive of squamous cell carcinoma;
peripheral ameloblastoma is considered the second differential diagnosis
(85-1561)
Contributed by Charles Dunlap, D.D.S. and Bruce Barker, D.D.S.,
Department of Oral Pathology, University of Missouri-Kansas City,
School of Dentistry, Kansas City, Missouri.

The opinions of the consultants were divided between the two
possibilities and their variations. Some opinions:
Weidner from Wake Forest, "Invasive squamous carcinoma".
Azzopardi from London, "Well differentiated squamous carcinoma;
cannot say whether or not related to radiotherapy".
Weathers from Emory, "Squamous carcinoma with basaloid features".
Cherwitz and Wick from Minneapolis, "Basaloid squamous cell
carcinoma".
Meyer from St. Louis, "Five votes for squamous cell carcinoma with
basaloid features, one for pseudosialometaplasia".
Hansen from San Francisco, "We had a great deal difficulty with this
case based primarily on whether or not its origin was central in bone or
was strictly peripheral. If it is a peripheral lesion then several of our
group preferred to call it a peripheral ameloblastoma and even those
who thought it was a squamous cell carcinoma believed the prognosis would be fairly good."

Abrams from University of Southern California, "Peripheral ameloblastoma."

Tomich from Indiana, "Peripheral (extraosseous) ameloblastoma with acanthomatous areas. I suppose there could be a superimposed surface epithelial proliferation (i.e., PEH) overlying the ameloblastoma."

Reibel and Pindborg from Copenhagen, "Superficial squamous cell carcinoma with features of basal cell carcinoma."

White from Kentucky prefer, "Peripheral ameloblastoma." Simon from San Juan, Argentina, "Peripheral acanthomatous ameloblastoma, benign, without relation with previous irradiation."

CASE #7 Migratory glossitis (85-1687)
Contributed by Charles Dunlap, D.D.S. and Bruce Barker, D.D.S., Department of Oral Pathology, University of Missouri-Kansas City, School of Dentistry, Kansas City, Missouri.

With a few exceptions diagnoses includes acute and chronic stomatitis, psoriasiform mucositis, geographic tongue with psoriasiform papillae, pustular mucositis with focal nerve proliferation ("mini-traumatic neuroma"), psoriasiform lesion consistent with "wondering rash" of the tongue, piogenic granuloma, etc.

During the discussion of the case the majority of the audience was pleased to accept more euphonic designations such as mucositis areata migrans dolorosa or papillitis dolorosa nodularis or mucositis and papillitis nodularis or dolorosa psoriasiformis; have your pick.

CASE #8 Carcinoma, predominately clear cell type, with abortive secretory differentiation, probably of glandular origin VERSUS carcinoma, predominately clear cell type, with abortive ameloblastic differentiation, probably of odontogenic origin (S-85-0424.1 & .2)
Contributed by Harold L. Hammond, D.D.S., Department of Oral Pathology, The University of Iowa, College of Dentistry, Iowa City, Iowa.

In submitting the case, Dr. Hammond and associates expressed that they welcomed the opinions and comments of the consultants.

A few comments:
Weidner from Wake Forest, "I favor a diagnosis of high-grade mucoepidermoid carcinoma, possibly arising within the maxilla (Oral Surg 40:631, 1975)".

Azzopardi from London, "On basis of photos and results indicated from special stains, this could be a high grade mucoepidermoid carcinoma. On pure HE histology (0424.1 available not 0424.2), I would say "consistent with mucoepidermoid carcinoma, rather than diagnostic. Is there such a thing as an ME variant of ameloblastoma ? (probably not)."

Abrams from University of Southern California, Donath from Hamburg, Hori from West Virginia, Oxenhandler from Chattanooga, Sciuuba and Kahn from Long Island and Immnerman from Flushing among others
prefer mucoepidermoid carcinoma.

Waldron from Washington University, "Odontogenic carcinoma - clear cell type. A mucoepidermoid carcinoma must be included in the differential diagnosis."

Tomich from Indiana, "This appears to be an excellent example of a long-recognized but only recently-described lesion which has been termed a clear cell ameloblastoma by Waldron, Small and Silverman and clear cell odontogenic tumor by Eversole and his co-workers."

White from Kentucky prefer, "Clear cell odontogenic tumor."

Weathers from Emory, "I would interpret this as a salivary gland adenocarcinoma arising from an odontogenic origin."

Other diagnoses include clear cell adenocarcinoma, benign epithelial tumor, partly clear cell type, monomorphic adenoma, malignant epithelial schwannoma, rule out metastatic carcinoma from kidney.

Dr. Hammond and associates can take refuge in the quote from Voltaire, "When I think of one, I prefer the other".

CASE #9 Osteosarcoma (D-252-85)

Contributed by Albert M. Abrams, D.D.S., Department of Pathology, University of Southern California School of Dentistry, Los Angeles, California.

The following commentary from Dr. Abrams summarizes the opinions and thoughts of the consultants. "We had great difficulty in classifying the initial biopsy material in this case. Interpretations by several pathologists included neuroectodermal tumor, small cell osteosarcoma, central malignant salivary gland tumor, odontogenic carcinoma, Ewing's sarcoma and embryonal rhabdomyosarcoma. Immunohistochemical procedures revealed positive staining with S-100 and with neuron-specific enolase and negative reactions with myosin, myoglobin and cytokeratins. PAS stain for glycogen was negative. Thorough examination of the resected hemimandibulectomy specimen revealed focal areas of classic osteosarcoma and chondrosarcoma."

CASE #10 Nodular fasciitis (85-909)

Contributed by Robert C. Ahlvin, M.D., Department of Pathology, Missouri Delta Community Hospital, Sikeston, Mo.

The majority of the consultants prefer nodular fasciitis, myxoid nodular fasciitis, pseudosarcomatous fasciitis and the like.

Simon from Argentina, "Our residents prefer liposarcoma, myxoid type. Personally, I believe in nodular fasciitis or proliferative myositis (I believe I saw basophilic cells neurogenic, indicating the latter possibility)."

Azar from Tampa, "Probable nodular fasciitis. A myxoid benign tumor, but not a myxoma, was also considered."

Hammond, Finkelstein, Vincent, Deahl, Lundquist, and Watson from Iowa, "A reactive process. Proliferative myositis VERSUS proliferative fasciitis VERSUS nodular fasciitis."
Donath from Hamburg, Meyer and Manes from St. Louis prefer myxoma, intramuscular or soft tissue.

Other diagnoses include myxoid variant of malignant fibrohistiocytoma, myxoid liposarcoma, rhabdomyosarcoma, myxoid neurofibroma and locally aggressive fibrohistiocytic lesion.

CASE #11 Vanishing bone disease (S-5019-85)
Contributed by Richard Komorowski, M.D., Department of Pathology, Milwaukee County Medical Complex, Milwaukee, Wisconsin.

A few comments:
Lumerman from Flushing, New York, "The histologic features resemble aneurysmal bone cyst although the radiographic picture suggests "vanishing bone disease" (angiomatosis of bone)."
Azzopardi from London, "Disappearing bone disease due to an actively eroding granulation tissue-like material. Relationship to polymyositis not known."
Sprague from Nebraska, "Although the presence of sinusoidal vascular spaces are not in evidence, I rather favored a diagnosis of aneurysmal bone cyst. I guess I don't have the intestinal fortitude to make a diagnosis of massive osteolysis or vanishing bone disease on this material!"
Weathers from Emory, "Phantom bone disease?"
Sciubba and Kahn from Long Island, "Massive osteolysis/vanishing bone disease/Gorham's disease."
Tarpley from Georgetown, "Marked vascular change with granulation tissue suggestive of vanishing bone disease (Gorham's disease)."
Waldron from Washington University, "Massive osteolysis, Gorham's disease etc."
Abrams from University of Southern California, "Compatible with massive osteolysis. The tissue reaction does not appear to be particularly specific. I saw no rheumatoid type changes"
Oxenhandler from Chattanooga, "Vanishing bone disease."

Other diagnoses include giant cell reparative granuloma, primary hyperparathyroidism, osteosarcoma and aneurysmal bone cyst.