

**AMR SEMINARS: LIST OF CASES  
(GROUPING OF CASES PER CONTRIBUTOR)**

***Legends.***

*The No. on the right indicates the Seminar in which the case was contributed.*

*The asterisk \* means publication in Advances in Anatomic Pathology as a selected case for the AMR section of the journal.*

**V Adsay**

Malignant Glomus Tumor (Glomangiosarcoma) of the kidney (54).

Gastrointestinal-type clear cell sarcoma (52).

## **PW Allen**

Benign lymphoepithelial cyst, head of pancreas (53).

Apocrine gland cyst with hemosiderotic dermatofibroma-like stroma of the skin and subcutis of the calf (51).

Female adnexal tumor of probable Wolffian origin (FATWO), mesentery and retroperitoneum (49).

Retiform hemagioendothelioma (Dabska), skin of left heel (47).

Primary retroperitoneal borderline mucinous tumor (45).

?Lipofibromatosis, ?Lipoblastoma, retroperitoneum (43).

Spindle cell / composite hemangioendothelioma (41).

Multiple gastric intramucosal cysts and fundic gland polyps in Zollinger-Ellison's syndrome (39)

Undiagnosed soft tissue tumor, presumably benign, with features of desmoplastic fibroblastoma, solitary fibrous tumor, and pleomorphic hyalinizing angiectatic tumor (37).

Hemosiderotic fibrohistiocytic lipomatous lesion of the foot – ankle (35).

Infiltrating (and recurring) glomus tumor of the deep soft tissues misdiagnosed as synovial sarcoma (33).

Desmoplastic fibroblastoma (31)\*.

Solitary superficial angiomyxoma with epithelial components, subcutis, and scalp (29).

Hyaline fibromatosis (27)\*.

Periosteal lipoma (25).

"Eskimoma" (23).

Low grade fibromyxoid sarcoma (21).

Atypical decubital fibroplasia (19).

Nuchal fibroma (17).

Granulosa cell tumor of ovary with florid mesothelial hyperplasia (15).

Hectopic hamartomatous thymoma (13).

Iuxta-articular myxoma (12).

## **CE Bacchi**

Mastocytosis in lymph node (53).

Glomangioma of the posterior mediastinum (51).

Intestinal perineurioma with infiltrative features (49).

Malignant Leydig cell tumor of the testis in a 1 year-old boy with isosexual pseudoprecocity (47).

Metastasizing cellular dermatofibroma of the skin (45)\*.

Rhabdomyomatous carcinoma of the thymus of posterior mediastinum (42).

Lymphoplasmacytic lymphoma associated with peliosis hepatis (40).

Granulomatous slack skin (38).

Malignant tumor, NOS (36).

Mixed epithelial-stromal tumor of the kidney (34)\*.

Low grade endometrial stromal sarcoma of the vagina (31).

Mucinous cystadenocarcinoma of the breast (28).

Oxyphilic clear cell carcinoma of the ovary (25).

Liver in a "tropical splenomegaly syndrome" (22).

Malignant ectomesenchymoma of soft tissues (20).

Hodgkin's disease of mixed cellularity with multi-nucleated giant cells of Warthin-Finkeldey type (18).

## **D Ben-Dor**

Bile duct adenoma with neuroendocrine proliferation (54).

Langerhans cell histiocytosis of lymph node (52).

High grade undifferentiated adnexal carcinoma of the skin (50).

Uterine leiomyoma with non-lymphomatous massive T-cell infiltrates secondary to treatment with GnRH agonist (48).

Parotid clear cell oncocytosis, presumably diffuse bilateral (46).

Sarcomatoid urothelial carcinoma of the bladder with pseudoangiosarcomatous features (44).

Merkel cell carcinoma of the scalp presenting as simultaneous metastatic lesion in the gums of the upper and lower jaws (42).

Pregnancy luteoma with florid degenerative changes vs juvenile granulosa cell tumor arising independently adjacent to (collision) or pregnancy luteoma vs juvenile granulosa cell tumor with extensive luteinization (mimicking luteoma) (40).

Follicular adenoma of the thyroid with papillary architecture (39).

o Follow-up case to AMR Seminar #32, case1. Adrenal oncocytoma, malignant (37).

Carcinoma ex pleomorphic adenoma (encapsulated, non-invasive, carcinoma in situ), parotid gland (36).

Benign adenomyoepithelioma of the breast (34).

Adrenal oncocytoma (32)

## **O Ben-Itzhak**

Congenital melanocytic tumor of the face, scalp and orbit (54).

Thyroid follicular carcinoma-like tumor of the kidney (or thyroid-like follicular variant of papillary carcinoma?) (52).

Postradiation osteosarcoma of the pleura in a patient with previous diagnosis of Hodgkin's disease and probable atypical myofibroblastic cell proliferation with ossification of soft tissue of the axilla (O Ben-Itzhak) (50).

Hydatid cyst (echinococcosis) of bone (49).

## **GJ Berry**

- Intracardiac teratoma (left atrium) (54).
- Acute mononucleosis, tonsil (52).
- Sarcomatoid variant of anaplastic carcinoma of the thyroid (50).
- Hamazaki-Wesenberg bodies (“yellow-brown bodies”) in granulomatous lymphadenitis (48).
- Histiocytoid cardiomyopathy (46)
- Desmin cardiomyopathy (44).
- Tracheal paraganglioma (42).
- Pulmonary heterotopia in a monoamniotic twin (40).
- Pompe disease involving the heart (alpha-1,4-Glucosidase deficiency) (38).
- Extranodal dendritic reticulum cell sarcoma (36).
- Microcrystalline pulmonary intravascular material secondary to intravenous injection of oral Vicodin tablets (34).
- Epithelioid psammomatous melanotic schwannoma (32).
- Benign granular cell tumor of bronchus (30).
- Intra-arterial tumor emboli of the lung (28).
- Enteropathy associated T-cell lymphoma (26).
- Isolated form of Takayasu’s arteritis (24).
- Bronchogenic cyst compressing ascending aorta and left coronary artery (22).
- Pulmonary capillaritis in Wegener’s granulomatosis (20).
- Solitary fibrous tumor of pleura with entrapped pulmonary parenchymal elements (18).
- Carcinoid heart disease (16).
- Florid polymyositis in a case of upper motor neuron disease (14).
- Large B-cell lymphoma associated with unclassified sarcoma ("collision tumor") (10)
- Giant cell myocarditis (12)
- Kikuchi's disease (11)
- Kawasaki’s disease (9)
- Congenital cystic lymphangiectasia of the lung (8).
- Overlap ALCL/HD of the lymph node (7).
- Epithelioid hemangioendothelioma of the lung (6).
- Large cell lymphoma with sclerosis of the ovary (5).
- EBV-associated B cell lymphoma of the placenta (4).

## **M Bisceglia**

Fatal systemic venous air embolism following endoscopic retrograde cholangiopacreatography (ERCP) (54)

“Spontaneous” multiple adenomas” (spontaneous adenomatosis) of liver (52).

Medullary sponge kidney with small kidney (50).

Familial complete androgen insensitivity syndrome (Morris syndrome or testicular feminization syndrome) (48)\*.

Massive lymph node metastasis of aneurysmal fibrous histiocytoma (primary in the skin). So-called (benign) metastasizing cutaneous fibrous histiocytoma (metastasizing “benign” fibrous histiocytoma of the skin) (46)\*.

Bone metastases from cutaneous basal cell carcinoma (44).

Quiz Case (1). India ink endoscopic tattooing (44).

Unilateral renal cystic disease of nongenetic etiology (42)\*.

Quiz case n. 1. Myoepithelioma of the vulva (41).

Toxoplasmic lymphadenitis (40).

Lymphadenoma of the parotid gland without sebaceous metaplasia (38).

Brucella orchitis (38).

Lymphangioma-like adenomatoid tumor of the adrenal gland (36).

McArdle’s disease or myophosphorylase deficiency (36).

Follow up case. Chester-Erdheim disease evolution in Langerhans’ cell histiocytosis (35).

Additional case: endometrioid primary carcinoma of the uterine salpyngx (35)\*.

Lipofibromatous hamartoma of the median nerve and lipofibromatous hamartoma of the medial plantar nerve with macrodactyly (34)\*.

o Additional case: Heffner tumor (34)\*.

• Quiz case (1). Hyperplastic transplanted parathyroid in the forearm (31).

• Quiz case (2). Pneumatosis cystoides intestinalis (31).

• Quiz case (1). Congenital dyserythropoietic anemia, type II (29).

Chester-Erdheim disease involving the brain (case A) and involving bone (case B) (28)\*.

Inflammatory pseudotumor of the kidney (26).

Retroperitoneal lymphangiomyoma versus (renal) angiomyolipoma without adipocytic component (26).

• Quiz case (1). Metastatic chondrosarcoma to the skin of nose from a primary of the digit (26).

Central core disease with structured cores (24)

Hypertrophic cardiomyopathy in an infant (22).

Littoral cell angioma of the spleen plus renal cell carcinoma plus angiomatous meningioma (20)

Quiz-case. Mycobacterial avium infection (20).

Giant cutaneous trichilemmal horn (17).

Secondary chondrosarcoma of digit (17)\*.

?Peripheral T-cell lymphoma with erythrophagocytic histiocytosis in bone marrow (17).

Congenital mesoblastic nephroma (14).

Mesoblastic nephroma plus multicystic nephroma in adult (13)\*.

Atypical polypoid adenomyoma of the uterus (12)\*.

## **IJ Bleiweiss**

- Alveolar soft part sarcoma (53).
- Glomus tumor of the stomach (51) .
- Cellular type of congenital mesoblastic nephroma (49).
- Invasive adenosquamous carcinoma (low grade metaplastic carcinoma) (46).
- Osteogenic sarcoma, probably radiation-induced (44).
- Basal cell carcinoma of the nipple (42).
- Myxoid liposarcoma, metastatic to the breast. (38).
- Metastatic medullary carcinoma of the thyroid simulating melanoma (35).
- Microglandular adenosis of the breast (33).
- Low grade (myofibro-)sarcoma plus tubular carcinoma (collision tumor) versus sarcomatoid carcinoma (31).
- Retrograde lymphatic spread to the breast of metastatic ovarian carcinoma from axillary lymph node metastasis (29).
- Congenital mediastinal teratoma with immature neural elements (27).
- ?Nodular fasciitis, ?Fibromatosis, involving the breast (25).
- Pseudoangiomatous hyperplasia of mammary stroma (23).
- Adenomyoepithelioma of the breast (21).
- Ossifying fibromyxoid tumor of soft parts (19).
- ?Hemangiopericytoma of stomach (17).
- Malignant phyllodes tumor of the breast with heterologous elements (15).
- Ductal adenocarcinoma of heterotopic pancreas in pylorum (12).
- Synovial chondromatosis of temporo-mandibular joint (11).
- C-cell hyperplasia of the thyroid (10).
- Glomus tumor of the stomach (9).
- Chondroblastoma, probably recurrent (7).
- Ovary infiltrated by malignant melanoma (6).
- Prostatic chips infiltrated by poorly differentiated adenocarcinoma with signet ring cell differentiation (6).
- Metastatic paraganglioma in lymph nodes (5).
- Black thyroid due to minocycline (4).
- Metastatic hemangiopericytoma of meninges (angioblastic meningioma) to pleura and paravertebral area (4).
- Residual intraductal and infiltrating duct carcinoma of the breast with chemotherapy induced changes (3).
- Goblet cell carcinoid of the ovary (2).
- Malignant phyllodes tumor with spindle cell and liposarcomatous elements (1).

## **N Cartagena, Jr**

Granulomatous slack skin (12).

Metastatic hidradenocarcinoma (9)

Tigroid degeneration of myocardium (10).

Spleen with paraimmunoblastic variant of small lymphocytic lymphoma/leukemia (7).

Sarcomatous transformation of a choroid plexus carcinoma of the right lateral ventricle (6).

Follicular small cleaved cell lymphoma of the lymph node (5).

Follicular lymphoma of the parotid secondary to Dilantin (4).

Myositis ossificans of the thigh (3).

Cutaneous myofibroma of the foot (2).

## **JKC Chan**

Parotid gland – Metastatic Merkel cell carcinoma, with rhabdomyosarcoma differentiation (metastatic “Merkel cell carcinosarcoma”) (53).

Lymph node – Kawasaki disease (48).

Cocaine-induced osteocartilaginous necrosis and mucosal ulceration/inflammation (46).

Olfactory neuroblastoma with glandular differentiation –nasal cavity (43).

Lymphangiomyomatosis and multifocal micronodular pneumocyte hyperplasia (41).

Severe acute respiratory syndrome due to SARS coronavirus infection (41).

Acinar cell cystadenoma of the pancreas (? Acinar cystic transformation) (39).

Peritoneum – decidualized endometriosis with myxoid change. (39).

Radiation-induced pseudocarcinomatous proliferations of the urinary bladder (38).

Lymph node –involvement by angiomyolipoma (36).

Dedifferentiated adenoid cystic carcinoma of submandibular gland (34).

Sclerosing extramedullary hematopoietic tumor in chronic myeloid leukemia (33)

Mucocele with myxoglobulosis of the appendix (32).

Cotyledonoid dissecting leiomyoma of the uterus (32).

Pleuropulmonary blastoma, type I (31).

Necrotizing fasciitis due to group-A streptococcus (30)

Light chain disease associated with plasmacytoma (28).

Prototheca zopfii infection (28).

Fat embolism of the lung and kidney (26).

Ependymoma, clear cell type plus papillary type (24).

Inflammatory follicular dendritic cell tumor of liver (inflammatory pseudotumor of liver) (24).

Tubular adenosis with DCIS (22).

Pancreatoblastoma (22).

Metanephric adenoma (20).

Ectomesenchymal chondromyxoid tumor of the tongue (20).

Myospherulosis (19).

Dysembryoplastic neuroepithelial tumor (17).

Sclerosing adenosis of the prostate (15).

Sparganosis of the brain (13).

Metachromatic leukodystrophy of the brain (12)

Leydig cell tumor (malignant) with unusual myxoid change (11).

Leigh's disease or subacute necrotizing encephalomyelopathy (10).

Cutaneous lymphadenoma (9)

Epithelioid hemangioendothelioma of the brain (8).

Littoral cell angioma of the spleen (7).

Diffuse large cell lymphoma of B-lineage, with prominent fibrillary matrix and rosettes, of lymph node (6).

Medullary thyroid carcinoma, pseudopapillary variant (5).

Penicillium marneffei infection of the colon (4).

Cervical cryptococcal lymphadenitis (3).

Keratin globules of the ovary (3).

Soft tissue -large cell lymphoma with unusual myxoid stroma (2).

Metanephric adenoma of the kidney (2).

Kimura's disease involving soft tissue of the neck (1).

## TV Colby

Histologic changes (lung) consistent with so-called hyper IgG4 disease (54).

Iatrogenic pulmonary emboli (52).

Malignant mesothelioma (of the pleura) with invasion of the lung, presenting with pneumothorax, in a patient with (concurrent) mesothelioma in the peritoneum) (50).

Unique pulmonary cystic, probably hamartomatous, lesions in the lung in a patient with von Hippel Lindau disease (48).

Metastatic (benign) meningioma (46).

Metastatic Merkel cell carcinoma with sarcomatoid component and glandular differentiation (44).

Quiz Cases (2). Amebic pneumonia (44).

Churg-Strauss disease of the gut (43).

- Quiz case (1). Metastatic mixed tumor of salivary gland (parotid) to the lung (43).

Metastatic (benign) papilloma of the breast (41).

Visceral juvenile xanthogranuloma of the lung (39).

- Quiz-Case (1). Hypereosinophilic syndrome (39).

Phlegmonous enterocolitis due to *E. coli* (37).

Abdominal localized malignant mesothelioma of the cecum (34).

Inflammatory fibrosarcoma of the lung (32).

Epithelioid hemangioendothelioma of the liver (30).

Erdheim-Chester disease involving the lung (29)\*.

- Quiz case (2). Disseminated toxoplasmosis (in transplanted lung) (29).

Metastatic low grade endometrial stromal sarcoma from the pelvis (27).

Fibromatosis of the chest wall presenting as a pleural mass (27).

- Quiz case (1). Chronic clofazimine therapy effect (T. Colby).

Cortical thymoma/thymic carcinoma sequence (24).

*Rhodococcus equi* infection in AIDS (23).

Intrahepatic cholangiocarcinoma (23).

Subcutaneous phycomycosis (21)

Pulmonary capillary hemangiomatosis (19).

Malignant mesothelioma, "sarcomatous" type, with prominent lymphoid reaction (17).

Lymphangioleiomyomatosis of lung (14).

Therapy-related changes in a carcinoid tumor (12).

Seminoma with cystic change in thymus associated with epithelial proliferation (thymoma?) (10)

Diffuse pulmonary lymphangiomatosis (9).

## **K Cooper**

Metastatic low grade endometrial stromal sarcoma (53).

Malignant ectomesenchymoma arising in a uterine MMMT (51).

Phosphaturic mesenchymal tumor of soft tissue (49).

Angiomatoid fibrous histiocytoma (AKA angiomatoid "MFH") of the adrenal (47).

Myxoid schwannoma (45).

Inflammatory myofibroblastic tumor of the kidney (43).

Idiopathic retroperitoneal fibrosis (Ormond's disease) (41).

Large cell neuroendocrine carcinoma of the larynx. (39).

Pseudoactinomycotic radiate granules in endocervical curettage (37).

Rhinoscleroma (35).

Ischemic colitis secondary to CMV vasculopathy (33).

Herpes virus proctitis in ulcerative colitis (31).

Cardiac fibroma (29).

Anaplastic variant of spermatocytic seminoma with a high grade sarcoma demonstrating myogenic differentiation (27).

Bilharzioma (25).

1. Quiz case (2). Bilharzioma of the rectum (K. Cooper).

Hydatid cyst (23).

Angiomyolipoma of liver (21).

"Sclerosing hemangioma" of the lung (19).

Mycobacterial necrotizing lymphadenitis (17).

## **I Damjanov**

Hodgkin's lymphoma (53).

Low-grade sarcoma of the bladder, multinodular (51).

Acral myxoinflammatory fibroblastic sarcoma (inflammatory myxohyaline tumor) (49).

Atrial myxoma with glandular inclusions (47).

Malignant Sertoli cell tumor metastatic to the abdominal lymph nodes (45).

Necrobiotic xanthogranuloma –skin-subcutis (43).

GIST of the liver, metastatic to the lymph nodes, with giant cell reaction (41).

Inflammatory leiomyosarcoma of the abdomen (39).

Carcinosarcoma of the urinary bladder metastatic to the clitoris (37).

Primitive neuroectodermal tumor of the ovary, arising in a teratoma (33).

Anaplastic T-cell lymphoma (31).

Malignant melanoma of the vagina with ganglioneuroblastic differentiation (35).

Parachordoma (29).

Undifferentiated embryonal sarcoma (28).

## **AP Dei Tos**

Low grade endometrial stromal sarcoma with sex cord differentiation (45).

Malignant mixed Mullerian tumor with heterologous (chondrosarcomatous) differentiation of the peritoneum (41).

EWS/PNET of the meninges (39).

Pulmonary epithelioid angiosarcoma (35).

Infiltrating squamous cell carcinoma of the liver arisen in hepatic cyst of foregut type (33).

Dedifferentiated liposarcoma with neural-like whorling pattern (31).

Renal extranodal Rosai-Dorfman's disease (29).

Spindle cell carcinoma (carcinosarcoma) of the esophagus with prominent basaloid differentiation (27).

Atypical teratoid/Rhabdoid Tumor of the brain (25).

Inflammatory leiomyosarcoma (23).

Dedifferentiated chordoma (21).

Primitive choriocarcinoma of the urinary bladder (18).

Fibroepithelial tumor of breast with digital fibroma-like inclusions in stromal component (16).

## **PP de Saint Maur**

Synovial (osteo-)chondromatosis (38).

Fulminating pneumonia by *Corynebacterium jeikeium* (36).

Lumbar nuchal-type fibroma in an adolescent boy with probable Gardner's syndrome (34).

Benign schwannoma of digestive tract (32).

Colitis cystica profunda diffusa resulting of protracted ulcerative colitis (30).

(Possible) colonic location of Behcet's disease (28).

Crohn's disease of the appendix vs idiopathic granulomatous appendicitis (26).

Desmoplastic fibroblastoma (24).

Toxic acute necrosis in a liver with Caroli's disease (22)

Liposarcoma (?) surgically induced ( ?) (20)

Perineal nodular induration of cyclist (atypical decubital fibroplasia and elastofibroma) (18).

Inflammatory pseudotumor of the skin (16).

Malignant mesenchymoma (14).

## **O Dietze**

Clear cell atypical fibroxanthoma (53).

Gamna-Gandy bodies in splenomegaly, probably secondary to an underlying liver disease (O Dietze). (51)

Chronic histiocytic intervillositis (51).

Ameloblastic carcinoma (49).

Low grade malignant Mullerian mixed tumor (47).

Rhabdoid meningioma –gr. 3 (44).

Adenocarcinoma of the urinary bladder with well differentiated tubulo-villous and poorly differentiated signet ring cell areas, most probably of urachal origin (42).

Clear cell change in colorectal adenoma (40).

Aggressive systemic mastocytosis, myelodysplastic syndrome (chronic myelomonocytic leukaemia) (38).

Neurofibroma with epithelioid features and granular cell differentiation (34).

Low grade epithelioid MPNST versus high grade extraskeletal myxoid chondrosarcoma (32).

○ Quiz case (1). Atypical lipomatous tumor with spindle cell features vs variant of myxofibrosarcoma, vs other possibilities (32).

Osteosarcoma of the bladder (30).

Papillary carcinoma of the thyroid within follicular tumor (28).

## **H Dominguez-Malagon**

Solitary fibrous tumor of the prostate (53).

Clear cell carcinoma of the kidney with sarcomatous areas of divergent differentiation (chondrosarcoma, rhabdomyosarcoma) (50).

Pulmonary adenofibroma (fibroadenoma of the lung, fibroleiomyomatous hamartoma, adenoleiomyomatous hamartoma) (48).

?Chordoid meningioma (45).

o Quiz case 1. Primary synovial sarcoma of the kidney (45).

Adenocarcinoma of the pigmented retinal epithelium (44).

Cellular neurothekeoma (41).

Malignant papillary mesothelioma presenting as an ovarian mass (primary ovarian malignant mesothelioma???) (39).

Spindle cell hemangioma. (37).

Extrapaneatic solid-cystic tumor (35).

Xanthomatous/angiomatic meningioma (with microcystic and secretory features) (33).

Primary yolk sac tumor of the appendix versus poorly differentiated adenocarcinoma with yolk sac features (31).

Biliary adenofibroma (29).

Fibrolamellar (oncocyctic) carcinoma of the liver with abundant cytoplasmic pale inclusions (27).

Lymphoepithelioma-like anaplastic carcinoma of the thyroid (25).

Epithelioid angiosarcoma of the breast (23).

Glomus-like neuroendocrine carcinoma (21).

Amphicrine medullary carcinoma of thyroid with luminal differentiation (19).

Epithelioid angiosarcoma with alveolar pattern (17).

Spindle cell sarcoma of the thyroid (fibrosarcoma?) (15).

Malignant meningioma of the parapharyngeal space (13).

Carcinosarcoma of the rete testis vs embryonal carcinoma with chondrosarcomatous elements (12).

Myofibroblastic sarcoma (?) (11).

Malignant melanoma (interpreted as epithelioid angiosarcoma) (10).

## **G Elmberger**

Microcystic adnexal carcinoma of the tongue (MAC) - A tumor derived from Ebner's glands (54).

Thyroid sclerosing mucoepidermoid carcinoma with eosinophilia. Hashimoto thyroiditis. Oncocytic adenoma/adenomatoid oncocytic nodule (52)

Malignant basomelanocytic tumor of the skin (50).

## **V Eusebi**

- Follicular dendritic cell tumor primary in breast (53).
- In situ squamous cell carcinoma of the breast with myoepithelial cell differentiation (51).
- Intracranial Rosai-Dorfman disease (49).
- Invasive “breast tumor resembling the tall cell variant of papillary carcinoma of thyroid” (47).
- ? Metastatic osteosarcoma (45).
- Invasive (?ductal) carcinoma of the pancreas, basaloid type (43).
- Primary intraosseous meningioma (41).
- Chondroblastoma of the sphenoid (39).
- Benign schwannoma with cellular (neuroblast-like component) (37)
- Metastasizing granular cell tumor (35).
- Malignant adenomatoid tumor of the testis vs adenomatoid tumor (33).
- Matrix producing carcinoma (malignant mixed tumor) or epimyoeplithelial carcinoma (31).
- Metastatic malignant mesothelioma to the maxillary bone (29).
- Transitional cell carcinoma of the bladder merging with a large cell anaplastic carcinoma component, an invasive micropapillary component and oat cell carcinoma (27).
- Mesothelioma invading thyroid (25).
- B-cell malignant lymphoma of the breast mimicking carcinoma (23).
- Monophasic synovial-sarcoma (21).
- Leiomyosarcoma with areas of rhabdomyoblastic differentiation (19).
- Acinic cell carcinoma of parotid with thyroid-like pattern (17).
- Squamous cell carcinoma of bladder with schistosoma hematobium (15).
- Pleomorphic invasive lobular carcinoma with apocrine differentiation (13).
- Thymoma (12).
- Central neurocytoma (11).
- Dedifferentiated chordoma (10).
- Papillary carcinoma of the thyroid, macrofollicular variant (9).
- Benign "triton" tumor of the vagina (8).
- Cystic islet cell tumor of the pancreas (7).
- Malignant rhabdoid tumor of the temporo-parietal (6).

## **G Falconieri**

Sinonasal Schwannoma (54).

Cellular fibroepithelial tumor with malignant stroma (? Adenosarcoma; ? atypical phylloides tumor) (52).

Russel body gastritis (50).

Focal nodular hyperplasia of the liver with sarcoid-like granulomas) (50).

Inflammatory myofibroblastic tumor of the lung (48).

Recurrent melanoma associated with (focal) osteoclast-like multinucleated giant cell reaction (46).

Small spindle and epithelioid cell sarcoma, NOS (44).

Quiz Cases (3). Bothryoid or phyllodes prostatic adenocarcinoma (44).

Parachordoma / myoepithelioma of the stomach (42).

Warthin-like papillary carcinoma of the thyroid (40).

Meningioma of the middle ear (38).

Syncytiotrophoblastic cell rich seminoma (36).

Papillary (chromophil) renal cell carcinoma (34).

Non germ cell tumor arising in a germ cell tumor (32).

Giant cell tumor of the larynx vs aneurismal bone cyst (30).

Onchocerca volvulus infection of the skin (28).

Hyalinized spindle cell lesion c/w intrapulmonary solitary fibrous tumor (28).

Ossifying fibromyxoid tumor (26).

**JA Ferreiro**

Non-Hodgkin's lymphoma in a Warthin tumor (21).

Adrenal oncocytoma vs oncocytic carcinoma (18).

Mixed adrenocortical adenoma-pheochromocytoma (16).

## **C Fisher**

Presacral (retrorectal) dermoid cyst with Paget's disease in a patient with possible Currarino syndrome (53)

Inflammatory leiomyosarcoma in HIV positive male of the pelvis (51).

Neurofibromatous involvement of ileum with 'diffuse ganglioneuromatosis' in a patient with NF-1 and retroperitoneal malignant peripheral nerve sheath tumor (49).

Synovial sarcoma with squamous differentiation (47).

Giant cell tumor involving sigmoid colon, following excision of borderline mucinous ovarian tumor with sarcoma-like mural nodules) (45).

Kaposi's sarcoma with unusual features of the iliac lymph node (43).

Perivascular epithelioid cell tumor (PEComa) resembling clear cell myomelanocytic tumor (41).

Clear cell sarcoma (of tendon sheath) arising in the palate (39).

Myxoid biphasic synovial sarcoma with SYT-SSX2 fusion transcripts (37).

Hemosiderotic fibrohistiocytic lipomatous tumor (35).

Synovial sarcoma with prominent glandular component (33).

Diabetic mastopathy (sclerosing lymphocytic lobulitis) (31)\*.

Acral myxoinflammatory fibroblastic sarcoma or inflammatory myxohyaline tumor of distal extremities with virocyte or Reed-Sternberg-like cells, or inflammatory myxoid tumor of soft tissue with giant bizarre cells (29).

Lymphangiomatosis (27).

Malignant glandular Triton tumor with neuroendocrine differentiation (25).

Follicular dendritic cell sarcoma of the breast (23).

Ossifying fibromyxoid tumor with stromal cysts (21).

## **CDM Fletcher**

- Deciduoid malignant mesothelioma (53)
- Reactive fibrovascular proliferation, possibly engrafted on a vascular malformation, of soft tissue of the neck (51).
- Oncocytic glomus tumour (49).
- Nasal chondromesenchymal hamartoma (??) (47).
- Extraskeletal Ewing's sarcoma /PNET (45).
- Duodenal gangliocytic paraganglioma (43).
- Acantholytic /pseudovascular squamous cell carcinoma (with myxoid stroma) (41).
- Splenic lymphangioma (39).
- Aneurysmal bone cyst of soft tissue (37).
- Sclerosing paraganglioma of the parapharyngeal space (35).
- Massive localized lymphoedema in morbid obesity (33).
- Primary abdominal monophasic synovial sarcoma (31).
- ?Phyllodes tumor of the prostate? Low grade soft tissue neoplasm? Adenosarcoma of prostate (29).
- Primary pigmented nodular adrenocortical disease (26).
- Cartilaginous hamartoma of the chest wall (24).
- Pleomorphic hyalinizing angiectatic tumor (22).
- Leiomyomatosis of the mediastinum (20).
- Renal carcinoma and angiosarcoma ("collision tumor") (18).
- Giant cell tumor of soft tissues (16).
- ? Myofibroblastoma of breast (14).
- "Myofibroblastoma with fatty component" (12).
- Low-grade Dabskoid angiosarcoma (11).
- Leiomyoma with perinodular hydropic degeneration (10).
- Low grade myxofibrosarcoma (9).
- Infiltrating glomus tumor of soft tissue (8).
- Angiomyofibroblastoma of the vulva (7).
- Follicular dendritic reticulum cell tumor of the lymph node (6).
- True histiocytic lymphoma/interdigitating reticulum cell sarcoma of the small intestine (5).
- Epithelioid angiosarcoma of deep soft tissue (4).

## **AL Folpe**

Intravascular large B-cell lymphoma involving an inflammatory fibroid polyp (53)

Multifocal duodenal gangliocytic paraganglioma with extensive ganglioneuromatous differentiation with lymph node involvement (AL Folpe) (50).

Metastatic primitive neuroectodermal tumor (resembling medulloepithelioma), arising in the setting of prior testicular germ cell tumor (48).

Intranodal palisaded myofibroblastoma (46).

“Early” pleomorphic hyalinizing angiectatic tumor of soft parts (44).

Crystal storing histiocytosis (42).

Extraspinal myxopapillary ependymoma (40).

Myoepithelioma of soft tissue, probably of low grade malignancy (38).

Phosphaturic mesenchymal tumor, mixed connective tissue variant causing oncogenic osteomalacia (36).

Epithelioid variant of pleomorphic liposarcoma, arising as a component of a dedifferentiated liposarcoma (34).

Clear cell myomelanocytic tumor of the falciform ligament (33).

## **J Forteza-Vila**

- Splenic marginal zone lymphoma with progression to a diffuse B cell lymphoma with overexpression of MYC (53).
- Gliomatosis cerebri (51).
- Sarcomatoid carcinoma of the adrenal gland (49).
- Brain venous infarction vs a postinfectious hemorrhagic leukoencephalopathy (47).
- Micronodular thymoma with lymphoid stroma (45).
- Angioinvasive scedosporium apiospermum (aspergillus-like) of the heart (43).
- Peripheral, extranodal, large T-cell lymphoma (NOS) (41).
- Langerhans' cell sarcoma (malignant histiocytosis X) (39).
- Cutaneous and visceral Kaposi's sarcoma with cardiac tamponade (37).
- Peripheral T-cell lymphoma unspecified (predominantly large cell) (35).
- Xanthomatous/angiomatous meningioma (with microcystic and secretory features) (33).
- HELLP syndrome with pseudoangiosarcomatous features (30).
- Fatal Kikuchi's disease versus LES (28).
- Banti's syndrome (26).
- Inflammatory pseudotumor of the brain (24).
- High grade neuroendocrine neoplasm vs metastatic amelanotic malignant melanoma (22).
- PNET vs rhabdoid tumor (21).
- Alveolar rhabdomyosarcoma (18).
- Malignant round cell tumor vs mediastinal sarcoma (malignant HPC) (15).
- Neoplastic angioendotheliomatosis plus progressive multifocal leukoencephalopathy (13).
- Non Hodgkin's B-cell lymphoma (monocytoid with large neoplastic B-cell) rich in non-neoplastic reactive T-cells (11).

## **M Fukunaga**

Mesonephric adenocarcinoma of the uterine cervix with mesonephric hyperplasia (54).

Papillary squamotransitional cell carcinoma of the uterine cervix (52).

Perivascular epithelioid cell tumor (PEComa) of the uterus (50).

Hepatoid carcinoma with serous component of the Fallopian tube (48).

Osteogenic melanoma of the foot (46).

Ochronotic arthropathy (44).

Florid papillomatosis (adenoma) of the nipple (42).

Malignant myoepithelioma of the vulva (40).

Diaphragmatic stromal endometriosis with catamenial pneumothorax (38).

Lymphoepithelioma-like carcinoma of the renal pelvis (36).

Extrapneumatic solid-cystic tumor (34).

## **MJ Gaffey**

Unusual glandular proliferation (metaplastic vs. hyperplastic vs carcinoma) cervix (8).

## **C Goldenberg**

Intestinal endometriosis (22).

Thyroid lymphoma (19).

Malignant spindle cell neoplasm (17).

Neuroepithelioma vs malignant paraganglioma (15).

Undifferentiated malignant neoplasm (sarcoma, NOS ?) (13).

**JR Goldblum**

Angiomatoid malignant fibrous histiocytoma (35).

## **J Goldstein**

Chronic lymphocytic leukemia and hepatocellular carcinoma (41).

Salivary duct carcinoma (41).

Lipoleiomyosarcoma (well differentiated liposarcoma with leiomyomatous differentiation) (39).

Atypical, solitary fibrous tumor (37).

Giant cell fibroblastoma of childhood or proliferative fasciitis and myositis of childhood versus pleomorphic myogenic sarcoma (34).

Ovarian, cystic monodermal teratoma (32).

Malignant neuroendocrine tumor in fibropolycystic disease of liver (30).

Recurrent superficial angiomyxoma vs lobular nerve sheath myxoma (29).

Bile duct cystadenoma vs metastatic adenocarcinoma (25).

Malignant mesothelioma -paratesticular (22).

Anaplastic large cell lymphoma with high content of reactive histiocytes (20).

Hepatoid carcinoma of the ovary (18).

?Neoplastic malignant histiocytic process (16).

Inflammatory pseudotumor of the urinary bladder (13).

Measles appendicitis (7).

Collision tumor of the ovary: papillary serous adenocarcinoma (A) and rhabdomyosarcoma (B) (6).

Solid, cystic and papillary tumor of the pancreas (5).

## **AM Gown**

Sertoliform adenoma of the rete testis (53).

Epithelioid schwannoma (49)

Spindle cell melanoma vs. epithelioid malignant peripheral nerve sheath tumor (46).

?Alveolar soft part sarcoma (44)

PEC-oma of the liver (42).

Epithelioid sarcoma, “proximal” type (38).

High-grade pleural-based thymic carcinoma vs metastatic thymic carcinoma to the pleura (40).

Histiocytosis with signet ring change; negative for carcinoma (36).

Metastatic adrenal cortical carcinoma (34).

Plexiform fibrohistiocytic tumor (28)

Polypoid mesothelioma of the colon (26).

- Quiz case. Low grade myofibrosarcoma of the bone with rhabdoid inclusions (24).

## **G Herrera**

Sinus histiocytosis with massive neck lymphadenopathy (4).

Placental site trophoblastic tumor (1).

**TT Holland**

Cutaneous sporotrichosis (3).

Papillary eccrine adenoma of the skin (2).

## **M Hurt**

Granular cell epulis (10).

Foreign body reaction to silicone of the breast (8).

Atypical apocrine lesion of the breast (8).

Ectopic ductal carcinoma of breast of soft tissue (7).

Metastatic adenocarcinoma of the umbilicus (6).

Metaplastic synovial cyst of the skin (5).

Fibrous histiocytoma of the skin (giant dermatofibroma) (3).

Benign lymphangioendothelioma of skin (2).

Gouty tophus of the skin (1).

**M Huszar**

Retroperitoneal malignant "triton" tumor (rhabdomyosarcoma plus malignant schwannoma) (1).

## **T Krausz**

Chronic pneumonitis of infancy due to *abca3* gene mutation (54).

Epithelioid malignant mesothelioma, low nuclear grade, with prominent papillary pattern (52).

Congenital neurocristic cutaneous hamartoma of the scalp (50).

Ligneous vaginitis in association with adenosis (48).

Retroperitoneal angiomyolipoma (46).

Kaposi's sarcoma of the scrotum vs angiosarcoma in a HIV+ patient (44).

Myolipoma (42).

Lipomatous hemangiopericytoma vs peculiar variant of atypical lipomatous tumor (40).

Metastatic acinar cell carcinoma, microglandular/microcystic variety) of the pancreas (38).

?Variant of myxoid chondrosarcoma of soft tissue (34).

Mucoepidermoid carcinoma of the thymus (32)..

?Spindle cell epithelioma of the vagina. ?Blastematos heterotopic Wilm's tumor (29).

Malignant paraganglioma with both conventional and sarcomatoid patterns (27).

"Deep" pseudorheumatoid nodule (granuloma annulare) (25).

Poorly differentiated angiosarcoma of ovary (22).

Leiomyoma with pregnancy associated changes vs leiomyosarcoma (19).

Malignant mesothelioma, "lymphohistiocytic" variant (16).

Mikulicz disease plus Hodgkin's disease in parotid lymphnode (13).

Scleroderma with atrophy of subcutaneous adipose tissue (12).

Various diagnoses: "undifferentiated malignant tumor" of the uterus, probably metastatic, with epithelioid morphology (11).

## **J Lamovec**

Metastatic glioblastoma to bone (53).

Perivascular epithelioid cell tumor (PEComa), malignant, probably metastatic (to bone) of unknown primary site (51).

Unclassified malignant epithelioid and spindle cell tumor with clear cell features and bizarre giant cells and prominent inflammatory and foam cell component (49).

- Quiz case (1): Infiltrating ductal carcinoma of the breast with neuroendocrine features with charcoal pigment injected for intraoperative localization (J Lamovec) (47).

Intraductal and invasive oncocytic papillary-mucinous carcinoma of the pancreas (47).

Aneurysmal type of solitary fibrous tumor / pericytoma-like fibroblastoma (45).

Renal cell carcinoma, chromophobe cell type, pigmented, associated (in collision) with angiomyolipoma (43).

Lipoblastoma intramuscular (41).

Hyperplastic callus in soft tissue at the site of the fractured surgically fixed femur associated with osteogenesis imperfecta (?type IV) (39).

Retroperitoneal hemangioblastoma extending from spinal canal. (37).

Malignant phyllodes tumor associated with infiltrating lobular carcinoma of the breast (collision tumor) (35).

Epithelioid sarcoma of proximal type (33).

(AL-)Amyloid lymphadenopathy (31).

Paraganglioma of the thyroid (29).

Sclerosing epithelioid fibrosarcoma vs malignant solitary fibrous tumor (27).

Congenital cystic adenomatoid malformation of the lung, type III (25).

Myeloid metaplasia of breast (23).

Granulocytic sarcoma (21).

Whipple disease (19).

Anaplastic large cell lymphoma CD30+ (17)

Meningeal hemangiopericytoma (15).

Benign peritoneal micro- and macro-cystic mesothelioma, with focal mural mesothelial proliferation (13).

Endolymphatic stromal myosis & retroperitoneal metastasis having pseudoangiosarcomatous pattern of growth (12).

?Unusual variant of non small desmoplastic small round cell tumor (11).

Adult neuroblastoma, differentiating, ?primary retroperitoneal, with metastases to omentum & ovaries. Gangioneuromatous differentiation in the metastasis to the retroperitoneal lymph node (10).

Epithelioid hemangiosarcoma of the thyroid (9).

Metastatic sarcomatoid carcinoma of right humerus, of probable renal origin (8).

Medullary carcinoma of the thyroid with oxyphilic and "squamous" features (7).

Epithelioid sarcoma of soft tissue (6).

Variant of fibroma of tendon sheath with disturbing pleomorphism of the finger (5).

Clear cell chondrosarcoma of femoral head (4).

Xanthogranuloma of the skin (3).

Mesenchymal chondrosarcoma of soft tissue vs extrasosseous osteosarcoma (2).

## **CJ Manivel**

Amyloid tumor of the iliacus muscle (21).

Meningioma with myxomatous and chordoma-like features (19).

"Black thyroid" in a case of cystic fibrosis (17).

Giant cell tumor of pancreas (14).

## **SJ Melnick**

Ki-1 lymphoma vs lymphocytic depletion Hodgkin's disease (10).

Partially differentiated cystic nephroblastoma (9).

Medullomyoblastoma (8).

Astroblastoma of the brain (7).

Infantile myofibromatosis of the mandible (6).

Combined germ cell / sex-cord-epithelial tumor of the ovary (5).

Malignant fibrous histiocytoma of the lung (4).

Rhabdoid tumor of the lung (3).

Retromastoid melanotic progonoma of infancy (2).

## **T Mentzel**

Liposarcoma of the thigh, mixed type (54).

Lupus panniculitis (Lupus erythematosus profundus) (52).

Polimorphous sweat gland carcinoma of the skin (50).

Progressive nodular histiocytoma (48).

Intravascular myopericytoma of soft tissue (46).

Spindle cell carcinoma of the parotid gland consistent with a SETTLE-type tumor (spindle cell carcinoma of possible branchial cleft origin) (44).

Reticular perineurioma of soft tissue (42).

Spindle cell rhabdomyosarcoma in adult (40).

Cutaneous CD8+/TIA+ T-cell lymphoma (38).

Well-differentiated cutaneous angiosarcoma mimicking clinical rosacea (36).

## **M Michal**

Primitive small cell tumor with epithelial, gangliocytic, neuroendocrine and mesenchymal differentiation (53).

Oncocytic papillary renal cell carcinoma (53).

Cribiform adenocarcinoma of the tongue (51).

Round-cell variant of low-grade perineurial sarcoma? (49).

Prolapse of the fallopian tube after hysterectomy associated with exuberant angiomyofibroblastic stromal response (47).

Low grade trichoblastic carcinosarcoma of the skin (45).

Sinonasal tubulopapillary low-grade adenocarcinoma (43).

Dendritic neurofibroma with pseudorosettes (41).

Pseudoneoplastic hyperplasia of the islet cells with perineurial spread of the pancreas most probably due to the obstruction of the ductus choledocus (39).

Oncocytic carcinoma of the stomach (o parietal carcinom of the stomach) (39).

Spindle and cuboidal renal cell carcinoma (loopoma) (37).

Sex-cord tumor with annular tubules unassociated with Peutz-Jeghers syndrome (37).

Benign renal angiomyoadenomatous tumor (34).

Placental site trophoblastic tumor (34).

Peripheral nerve sheath tumor with neuromelanin (32).

FATWO (Wolffian adnexal tumor) (32).

Adenoid-cystic carcinoma of th ovary (30).

Synovial metaplasia in lipoma (30).

Sex cord stromal tumor of the testis with features of the adult type of granulosa cell tumor (28).

Well differentiated acinic cell carcinoma associated with lymphoid stroma (28).

Sex cord stromal tumor of the testis with features of the adult type of granulosa cell tumor (26).

Well differentiated acinic cell carcinoma associated with lymphoid stroma (26).

Talerman's tumor of the testis (24).

Castleman disease (hyaline-vascular variant) with follicular dendritic cell stromal overgrowth (sarcoma) (24).

Retroperitoneal myolipoma (22).

Salivary gland anlage tumor (22).

(Giant) plexiform xanthomatous tumor (20).

Reticulum cell tumor with monoclonal gammopathy (18).

## **M Miettinen**

- Extraskelatal osteosarcoma (53).
- Gastric schwannoma (49).
- Round cell liposarcoma with cord-like growth pattern (47).
- True leiomyosarcoma of jejunum, high grade (47).
- Inflammatory malignant fibrous histiocytoma of the pelvis (43).
- Malignant glomus tumor of the stomach (40).
- Retroperitoneal uterine-type leiomyoma (38).
- Dendritic reticulum cell sarcoma, probably of nodal origin (36).
- Unclassified hemangioendothelioma variant, probably originating from the inferior vena cava - biologic potential uncertain (34).
- Extragastrointestinal stromal tumor of the urinary bladder sierosa (34).
- Inguinal lymph node metastasis from aggressive papillary adenocarcinoma of sweat gland origin (28).
- Unclassified sarcoma of the lower limb, with intravenous growth pattern (26)..
- Undifferentiated (embryonal sarcoma) of the liver (24).
- Solitary fibrous tumor of upper respiratory tract (22).
- Epithelioid malignant schwannoma (20).
- Gastro-intestinal autonomic nerve cell tumor (GANT) (18).
- Carcinoma of anal ducts (15).
- Sarcomatoid renal carcinoma (14).
- High grade angiosarcoma of deep tissue (13).
- High grade angiosarcoma of deep tissue (12).
- Littoral cell angiosarcoma of the spleen (11).
- Giant cell tumor of tendon sheath, cellular variant (10).
- Splenic large B-cell lymphoma with a red pulp distribution (9).
- True histiocytic lymphoma of the small intestine (8).
- Ossifying fibromyxoid tumor, malignant of the soft tissue –arm (7).
- Intra-abdominal desmoplastic small round cell tumor (6).
- Periosteal chondrosarcoma, with myxoid features, grade 2, of femur (5).
- Chordoma-like primary soft tissue sarcoma (parachordoma) (4).

## **H Molina-Kirsch**

Primary melanoma originated in a cystic teratoma (27).

Pleomorphic large T/NK lymphoma of the face (25).

Low grade endometrial stromal sarcoma vs metastatic adenocarcinoma in the uterus (23).

Angyostrongiloides Costarricensis (21).

Large cell lymphoma from MALT-oma of the breast (20).

Post-traumatic neuroma (18).

Central chondrosarcoma, gr. III (16).

## **E Montgomery**

Ectopic ependymoma of the groin (54).

Giant cell angiofibroma (Giant cell rich solitary fibrous tumor) (52).

Mucosal tear / “fractured colon” in collagenous colitis with perforation (50).

Inflammatory fibroid polyp of the small bowel (48).

Juxtaglomerular cell tumor of the kidney (46).

Lipofibromatosis (finger) (44).

Brown bowel syndrome (42).

Enterocolic (lymphocytic) phlebitis (40).

Colchicine effect in a hyperplastic polyp (38).

## **LA Moral**

Glioblastoma, epithelioid-sarcomatoid type (18).

Endometrial mullerian adenosarcoma (16).

Toxoplasmosis of the cerebellum in a HIV-patient (14).

Giant cell granulomatous hypophysitis (12).

Malignant mixed mullerian tumor of vagina (11).

Meningeal sarcoma (10)

Pleomorphic xanthoastrocytoma (9).

Intraventricular malignant meningotheliomatous and secretory meningioma (8).

Giant cell vasculitis involving left fallopian tube (7).

Tanycytic ependymoma of the spinal cord (6).

Microcystic meningioma (5).

Sinus histiocytosis with massive lymphadenopathy of the meninges of the brain (4).

Progressive multifocal leukoencephalopathy of the brain (3).

Carcinoma arising in mixed tumor (carcinoma ex-pleomorphic adenoma) of the parotid (3).

Metastatic lobular carcinoma of the breast to ovary (2).

## **CA Moran**

Endometriosis of the lung (53).

Mixed epithelial and stromal tumor of the kidney (50).

Interdigitating reticulum cell sarcoma.???? (37).

Aldosteronoma (33).

Hemangiopericytoma? Solitary fibrous tumor? multicentric? (29).

Low grade vascular proliferation with features of intraosseous hemangioma/epithelioid hemangioendothelioma (26)..

Pulmonary alveolar microlithiasis (24)..

Gastro-intestinal myogenic stromal tumor with prominent myxoid matrix (20)

Inflammatory pseudotumor of lymph-node (18).

Alveolar adenoma of lung (15).

Primary synovial sarcoma of mediastinum (14).

Primary rhabdomyosarcoma of the mediastinum (12).

Schwannoma of the anterior mediastinum (11).

Epithelioid hemangioendothelioma of the anterior mediastinum with osteoclast-type giant cells(9).

Embryonal carcinoma (or yolk sac tumor) of mediastinum (10).

Metastatic malignant melanoma of the lung (8).

Mediastinal multilocular thymic cyst with incidental seminomatous component (7).

Paraganglioma of the lung (6).

Benign solitary fibrous tumor of the pleura (5).

Liposarcoma of the anterior mediastinum (4).

Spindle cell thymoma of the mediastinum (3).

Pulmonary blastoma with trophoblast-type giant cells (2).

Extraskeletal Ewing's sarcoma, primary in the lung (peripheral neuroectodermal tumor) (1).

## **A Nascimento**

Cellular schwannoma with necrotizing granulomas (22).

Solitary fibrous tumor of meninges (19).

Neuroblastoma-like neurilemmoma (17).

## **G Pelosi**

Neurinoma of the mediastinum with extensive regressive changes including pseudocystic spaces (ancient Schwannoma) (54).

Combined small-cell carcinoma with skeletal muscle differentiation and spindle cell sarcoma component of myofibroblastic type may be suggested for this case (52)

Poorly differentiated synovial sarcoma of the vagina (51).

## **S Ramon y Cajal**

Primary ovarian fibrosarcoma (54).

Metastasis of sarcoma to brain (see comments) (52)

High grade malignant pleomorphic tumor of the pleura (50).

Epithelioid hemangioendothelioma with prominent intravascular dissemination (48).

Consistent with malignant solitary fibrous tumor of the pleura (46).

Uterine adenomatoid tumor (42).

Hepatobiliary cystadenocarcinoma with "ovarian-like stroma" (40).

Epithelioid angiosarcoma. (37).

Chronic rejection in lung transplant with herpes virus type inclusions (35).

Glioneuronal tumor with rosette (32).

Polypoid cystitis due to schistosoma hematobium (30).

Meningioangiomas: a form of mixed glio-neuronal tumors (27).

HHV-8 related Castleman's disease in lymphnode & spleen in a HIV+ patient (25).

Chondroblastoma of the acetabulum (23).

Florid mesothelial hyperplasia versus malignant mesothelioma (21).

Gangliocytic paraganglioma (19).

Gaucher disease, type I (17).

Mesenchymal chondrosarcoma (15).

Chronic rejection of liver (13).

Undifferentiated large cell carcinoma of the lung (12).

Desmoplastic fibroma (11).

Adenocarcinoma of prostate plus "adenoid basal cell" carcinoma (10).

Pulmonary hydatidosis (9).

Mucous cell adenoma of bronchial glands (8).

Spindle cell tumor - ? Dendritic reticulum cell sarcoma of the liver (7).

Solitary plasmacytoma of nasal cavity (6).

Malignant tumor of probable neuroectodermal origin of the orbit (4).

Gliosarcoma with lipomatous differentiation cerebello-pontine angle (3).

Acantholytic squamous cell carcinoma, pigmented, of the skin of nose (2).

Pleomorphic adenoma (mixed tumor) of the male breast (1).

## **A Sara**

Malignant mesenchymoma (12).

Mixed tumor of the breast (11).

Irradiated low grade glioma vs radiation changes (10).

Dedifferentiated liposarcoma (9).

Biphasic neoplasm of the mediastinum (8).

Neurocytoma of the brain (5).

Well-differentiated adenocarcinoma simulating fetal lung (pulmonary blastoma) lung (4).

Angioblastic meningioma(hemangioblastoma variant) of the cerebellopontine angle (3).

Ductal carcinoma in situ of the breast versus papillary carcinoma (2).

Dyshormonogenic goiter (1).

## **G Schibi-Brilliant**

Malignant mixed tumor of the bronchial glands (9).

Subcutaneous myxopapillary ependymoma of the sacrococcygeal region (7).

Gonadoblastoma of the ovary (1).

**SJ Schnitt**

Ligneous cervicitis (28).

## **JZ Sickel**

- True epithelial “mucoepidermoid” cyst arising within an intrapancreatic accessory spleen (54).  
Necrotizing eosinophilic myocarditis with associated vasculitis, consistent with Churg-Strauss syndrome. (52)  
Metastatic pancreatic adenocarcinoma simulating a primary mucinous tumor of the ovary (50).  
Seminoma with associated hyperplasia and cystic dilatation of rete testis (48).  
Small cell neuroendocrine carcinoma of uterine cervix (46).  
Extramedullary hematopoiesis involving the urinary bladder (44).  
Poorly differentiated transitional cell carcinoma of the urinary bladder with clear cell features (42).  
Coccidioidomycosis of the testes and epididys (40).  
Metastatic renal cell carcinoma involving liver with associated peliosis hepatis (39).  
Parvovirus B19 infection. (37).
2. Quiz case (2). Duplicatio intestinalis (35).  
Giant cell interstitial pneumonia (35).  
Well-differentiated endometrioid carcinoma resembling FATWO (33).  
Adenoid cystic carcinoma of the breast, grade I (30).  
Enteropathy-associated T-cell lymphoma (28).  
Spenic-gonadal fusion (26).  
Invasive hydatidiform mole with associated malignant trophoblastic proliferation (24).  
Invasive ductal carcinoma with neuroendocrine differentiation (endometrioid-like glandular ....) (22).  
Spindle cell (metaplastic) carcinoma of the breast with focal neural differentiation (20).  
Hepatic cysticercosis (18).  
Castleman’s disease with dendritic reticulum cell dysplasia (15).  
Placental site trophoblastic tumor (14).  
Extraskelatal myxoid chondrosarcoma (11).  
Leishmania lymphadenitis (12).  
Gliomatosis peritonei (10).  
Primary yolk sac carcinoma of the stomach (9).  
Lymphoepithelioma-like carcinoma of the uterine cervix (8).  
Cutaneous Ki-1 (+) large cell lymphoma of T-cell lineage of the neck and vulva (7).  
Synovial sarcoma of the thigh (6).  
Rhabdomyosarcoma with mixed embryonal and aveolar features of the soft tissue (5).

**EG Silva**

Primary ovarian carcinoma, microcystic type (54).

Well-differentiated Sertoli-Leydig cell tumor of the ovary (51).

Endometrioid carcinoma of the ovary (clear cell variant) (49).

Dedifferentiated endometrioid adenocarcinoma of the uterus (47).

## DV Spagnolo

Gastric schwannoma (54).

Indeterminate cell tumor / sarcoma; indeterminate cell histiocytosis; dendritic cell sarcoma, not otherwise specified - skin (50).

Reactive microglandular/microtubular proliferation in a benign nasal polyp (aka microglandular adenosis) versus low grade tubular carcinoma (48).

Rosai-Dorfman disease involving the patella (46).

Malignant mesothelioma (epithelioid) presenting as an abdominal wall soft tissue mass (44).

Leydig cell tumor with adipocytic differentiation and spindle cell differentiation with extensive stromal myxoid/myxohyaline change (and ??osteoid) (42).

Undiagnosed and unclassified high-grade malignant neoplasm with polyphenotypism (42).

Aggressive NK-cell lymphoma with terminal hemophagocytic syndrome (40).

Pediatric renal neoplasm characterized by epithelioid morphology, basement membrane production, focal HMB-45 immunoreactivity, and t(6;11) (p21.1;q12) (38).

Tumefactive soft tissue extension from longstanding Paget's disease simulating sarcoma (Paget's pseudosarcoma) (36).

T-cell granular lymphocytic leukemia involving lymph node (34).

Agranular CD4+CD56+CD2- cutaneous lymphoma (32).

Inflammatory myofibroblastic tumor of the spleen with necrotizing, suppurative granulomatous inflammation (30).

Pleomorphic hyalinizing angiectatic tumor of soft parts (28).

Unclassified fibromatous tumor, probably benign: probably a myxoid variant of desmoplastic fibroma (26).

Desmoplastic fibroblastoma or collagenous fibroma (26).

Desmoplastic ganglioglioma, non-DIG type, in an adult (24).

Hyaline cell-rich chondroid syringoma (22).

Extra-articular pigmented villo-nodular synovitis (?) (20).

PNET vs metastatic neuroblastoma (18).

Hodgkin's disease with sinus histiocytosis with massive lymphadenopathy (16).

## **JA Strauchen**

Angiotropic metastasis of malignant melanoma (53).

Subcutaneous panniculitis-like T-cell lymphoma involving the breast (51).

“Adenoid” glioblastoma (malignant astrocytoma, WHO grade 4, with divergent epithelial-mesenchymal differentiation) (49).

Hepatic “MALT” lymphoma (extranodal marginal-zone B cell lymphoma of mucosa-associated lymphoid tissue type) associated with primary sclerosing cholangitis (47).

Abdominal angiostrongylosis due to angiostrongylus Costaricensis (45).

Rhinocerebral mucormycosis (43).

Necrotizing enterocolitis due to clostridium septicum (41).

Infectious mononucleosis (39).

Endometrial marginal-zone B cell lymphoma, extranodal (MALT-type) (37).

Plexiform fibrohistiocytic tumor with regional lymph node metastases (35).

Mastocytosis (33).

Angiotropic B-cell lymphoma (31).

Lymphohistiocytoid malignant mesothelioma (29).

Post-transplantation syndrome in lymph node (Castleman's multicentric disease plus Kaposi's sarcoma) related to KSHV (27).

T-cell rich large B-cell lymphoma (25).

Canine lymphoma (23).

Gamma heavy chain disease (21).

Hodgkin's disease versus Hodgkin's disease-like Ki-1 positive ALC lymphoma (19).

Polyvinyl-pyrrolidone granuloma of bone (17).

Monocytic sarcoma (15).

Leprosy lymphadenitis (13).

Large cell anaplastic lymphoma secondary to chronic immunosuppression (12).

## S Suster

Filiform polyposis of the colon (54)

- Quiz case fibrosarcomatous transformation of DFSP with metaplastic bone (or focal “osseous differentiation”) or extraskeletal osteosarcoma (52)

Don't know – HELP! (52)

Lipoblastic nerve sheath tumor with signet-ring lipoblastic cells (S Suster) (49).

- Quiz Case 1. neurotropic malignant melanoma with rhabdoid features (vs epithelioid MPNST or malignant granular cell tumor) (46).
- Quiz Cases (4). Epithelioid variant of malignant peripheral nerve sheath tumor (vs melanoma with spindle cells, myxoid and balloon cell areas) (44).
- Quiz case (2). Nodular “metastatic” calcification of the lung secondary to hyperparathyroidism (43).

Dermal hamartoma with follicular and (?) eccrine differentiation (41).

Quiz case n. 2. Cutaneous adult myofibroma (41).

??Low grade carcinoma of unknown origin. \*\*\*F-Up in Sem. #45 : low grade endometrial stromal sarcoma (39).

Low-grade spindle cell myofibroblastic proliferation (38).

Spindle cell sarcoma, NOS (36).

Hyalinizing mesenchymal neoplasms of undetermined malignant potential (35).

- Quiz Case (1). Chester-Erdheim disease of the lung (35)\*.

Low grade vs benign spindle cell “true” histiocytic proliferation?? “Fibrous histiocytoma” of soft tissue?? Missed-the-boat-oma??? (34)

- Quiz case (1). Membranous fat necrosis (34).

?Myxoid and spindle cell sarcoma, low grade, consistent with extraskeletal myxoid chondrosarcoma (33).

?Monophasic synovial sarcoma with metaplastic cartilage (32).

?Low grade fibrohistiocytic tumor (32).

?Myoepithelioma of soft tissues (31).

Malignant epithelioid neoplasm?? of the serosal surface of bowel (29).

Quiz case (3). Malignant Sertoli cell tumor with focal spindle cell (sarcomatoid) features) (29).

Clear cell epithelioid smooth muscle tumor of low grade malignant potential (28).

Unusual renal cell carcinoma with tubulo-papillary features, unclassified (27)\*.

Giant adenomatoid tumor of the uterus (26).

(?Burnt out primary in the testis with) metastases (?yolk sac tumor plus teratoma with a neuroepithelioma component) in the retroperitoneum and metastatic chondrosarcoma to the heart (23).

- Quiz-case (1): Verruga peruana (22).

?Monophasic synovial sarcoma of the retroperitoneum (20).

Malignant lymphoma with rosette formation (19).

Histiocytosis X of lymph node "S-100 protein negative" (Langerhans cell granulomatosis) (18).

Recurrent abdominal mesenteric fibromatosis (16)..

Malignant glomus tumor (14).

?Malignant mixed tumor of salivary gland (13).

Epithelioid malignant schwannoma (12).

Epithelioid malignant schwannoma (11).

Sarcoma, NOS (10).

Subcutaneous nodule on the arm composed of small round cells with round nuclei in a myxoid stroma – absent mitotic activity - *no diagnosis* (9).

Plexiform fibrohistiocytic tumor of the abdominal skin (8).

Retroperitoneal metastatic embryonal carcinoma with sarcomatous transformation (8).

Sarcomatoid carcinoma vs angiosarcoma of the kidney (7).  
Epimyoeipithelial carcinoma of the parotid (7).  
Embryonal carcinoma of the abdomen (6).  
Tubular adenoma with atypical epithelial hyperplasia breast (5).  
Synovial sarcoma monophasic (S Suster) (4).  
Hürthle cell tumor with necrosis of the thyroid secondary to FNA (3).  
Mucinous meningioma of the brain (3).  
Keratin globulos in lymph node in a patient with squamous cell carcinoma (2).  
Primary Neuroendocrine carcinoma of the uterus (1).

## **W Tsang**

Sino-nasal HPC-like tumor (23).

Primary malignant mesothelioma of the spleen (25).

Combined renal cell oncocytoma and angiomyolipoma (27).

## **PE Wakely, Jr**

Embryonal rhabdomyosarcoma of the uterine cervix (53).

Rhabdomyomatous giant fibrovascular polyp of the esophagus (51).

Adult Wilms' tumor, monophasic epithelial type, metastatic (49).

Mycobacterial spindle cell pseudotumor (49).

Renal oncocytosis (47).

Mediastinal extrarenal rhabdoid tumor (undifferentiated sarcoma with rhabdoid features) (45).

- Quiz case (2). Hamazaki-Wesenberg bodies with granulomas (45).

Mesenchymal chondrosarcoma of the L5 vertebral body (43).

? Glycogen-rich (clear cell ) carcinoma of the breast (43).

- Quiz case n. 3. Polymorphous hemangioendothelioma of lymph node (41).

Malignant solitary fibrous tumor (or inflammatory fibroblastic sarcoma) (39).

## **N Weidner**

- Quiz-Case (2). Ovarian ependymoma (39).
- Quiz-Case (3). Pancreatoblastoma, in adult (39).
- Quiz case.(2). Hemangiopericytoma-like tumor of the nose (34).  
Low grade breast tumor c/w adenoid cystic carcinoma (32).
- Quiz case (1). Well differentiated neuroendocrine carcinoma of the lung (30).
- Quiz case (2). “Epimyoeplithelial carcinoma plus a stromal sarcoma” of the breast (28).
- Quiz-case 2: Xanthoma of the skin (26).  
"Benign intramural glandulo-cystic proliferation" in the bowell (24).  
Chondroid lipoma (22).  
Massive chondroid differentiation in fibrous dysplasia of bone (fibrocartilagineous dysplasia)  
vs fibrocartilaginous mesenchymoma of bone (20).  
Inflammatory pseudotumor of bladder (pseudosarcomatous fibromyxoid tumor) (18).  
Collecting duct carcinoma of kidney (16).  
Pleomorphic invasive lobular carcinoma of breast (14).  
Perineurioma (13).  
Fetal-type hepatoblastoma vs adenoma (11).  
Epithelioid monophasic synovialsarcoma (10).

## **LM Weiss**

Mature cystic teratoma with sarcomatous component (embryonal rhabdomyosarcoma) (53)

Histiocytic sarcoma of the stomach (51).

Ganglioneuroma, with focal neurofibroma and atypical areas (49).

Interdigitating dendritic cell tumor vs ?sustentaculoma of the adrenal (43).

Mucinous tubular and spindle cell carcinoma (42).

ALK-negative anaplastic large cell lymphoma (39).

Mantle cell lymphoma, involving the intestine (37).

Mantle cell lymphoma, involving intestine (36).

Rosai-Dorfman's disease of skin (extranodal: skin) (35).

Fibrous pseudotumor of the digits (33).

Atypical lymphoid infiltrate, consistent with an abnormal immune response (30).

• Quiz case (1). Well-differentiated neuroendocrine carcinoma of the lung (30).

Liver metastasis from acinar cell carcinoma of pancreatic origin (28).

Benign lymphoepithelial cyst of the pancreas (26).

Solitary fibrous tumor of the kidney (24).

Poorly differentiated retinoblastoma (22).

Malignant mastocytosis with myeloproliferative syndrome (20).

Pleomorphic adenoma of lung (18).

Sclerosing Sertoli cell tumor (16).

Angiosarcoma of the peritoneum (14).

Hairy cell leukemia in extralymphoid tissue (12).

Hairy cell leukemia in extralymphoid tissue (11).

Hepatocellular carcinoma with neuroendocrine features (10).

?Epithelioid leiomyosarcoma (9).

Unclassifiable malignant neoplasm of the liver (8).

? Possible "rhabdoid" variant of GIST of the stomach (7).

Monocytoid B cell lymphoma of the lymph node (6).

Retroperitoneal intra-abdominal desmoplastic small round cell tumor (5).

## **BM Wenig**

Oncocytoma likely arising from intranodal salivary gland parenchyma (54).

Sino-nasal glomangiomyopericytoma/HPC-like tumor versus atypical intranasal meningioma (48).

Undifferentiated malignant tumor in the parotid with extensive angioinvasion (AFIP's suggested opinions: A) Intermediate to high grade sarcoma consistent with MFH; B) Unusual intermediate to high-grade pleomorphic sarcomatous neoplasm of uncertain origin vs sarcomatoid carcinoma with sebaceous cell differentiation) (46).

Neuroendocrine carcinoma –for lack of an alternative diagnosis (44).

Histiocytoid variant of eccrine sweat gland carcinoma of the eyelid and orbit (41).

Necrotizing granulomatous inflammation of soft tissue of unknown etiology (37)..

Pneumocystis carinii infection of the small intestine with CMV infection (35).

Undifferentiated malignant neoplasm of unknown origin (33).

Sialoblastoma (31).

Tophaceous pseudogout of calcium pyrophosphate dehydrate deposition disease or CPP crystal deposition disease (29).

Sarcomatoid carcinoma of the parotid (27).

Intraductal oncocytic papillary neoplasm of the pancreas (25).

?Epithelial neoplasm, ?Paraganglioma, ?Glomoid indeterminate tumor, ?CASTLE (23).

Malignant, undifferentiated large cell neoplasm, NOS (21).

Heffner tumor (19)\*.

High grade sarcoma c/w malignant peripheral nerve sheath tumor vs a possible mucinous cystic neoplasm with associated sarcomatous stroma (17).

Papillary carcinoma of the thyroid, columnar cell variant (15).

Epithelioid angiosarcoma of adrenal gland (13).

Polymorphous adenocarcinoma of minor salivary gland (11).

**M Wick**

Quiz case 1 (49)