Patient was an 11-year-old boy. Progressive jaundice, slight fever and moderate anorexia for two months. No response to various antibiotics and studies indicated biliary obstruction. At exploration the gall bladder was found to be distended with bile and the CBD dilated to the size of the surgeon's thumb and filled with what were grossly indistinguishable from nasal polyps. Cholecystostomy, choledochostomy and biopsy were done. The child improved following relief of the obstruction and at a second operation all of the "polyps" were removed. Within five weeks after discharge x-rays showed pulmonary metastases. Progression was rapid, death occurring about 4½ months after the onset of jaundice.

At autopsy, polyps were again found in the CBD and metastases involved the peritoneum, spleen, right pleura, right lung, abdominal and thoracic lymph nodes.

Section A = Biopsy of common duct
Section B = Metastasis obtained at autopsy

A. Just beneath mass - Carcinoma Sarcoma.

B. Jones cells - small cells? Embryonic Phobaltoma?

Similar to Jannigos = Nosal Sar.

My diagnosis:

Remarks:

Dr. Stout's diagnosis:
An adult white female had a sudden prolapse of a mass from the rectum. There had been no previous rectal or bowel symptoms and no bleeding. There was a mass 5 x 5 x 5 cm. arising from the anterior wall of the rectum one inch from the anus. The mass was attached to a broad stalk. The mass was locally excised and two months later a radical removal of the rectum, anus and sigmoid colon was carried out. A scar was noted at the site of the polypectomy, but no other tumor was observed in the entire specimen or in the adjacent lymph nodes.

My diagnosis:
Highly malignant tumor - Not a ca of the mus.
 Pallion of muscle surrounding tumor suggests melanoma which can be pediculated.

Remarks:
Not considered as melanoma for now. We are changing.

No myxosarcoma
No leiomyosarcoma

Phalldomyosarcoma
3 Stomach
1 Rectum
1 Sigmoid

Dr. Stout's diagnosis:
met ca
met melanoma

Fontana - hard
Patient was a 4-year old white male. The boy fell from a sofa several months before admission and developed abdominal pain. He was brought to the hospital and a perforation of the transverse colon was closed. Postoperative x-ray studies revealed an abnormality which was thought to be a reduplication of the transverse colon. It was resected. Grossly there was a polypoid mass 3.5 cm. in diameter in the lumen of the colon. It was attached by a broad pedicle. There was dilatation of the colon proximal to it.

My diagnosis:

Bumpy fibroid polyp - Not a true polyp
Giant cell - regional - ? fat
Immunon histiocytes - phagocytes - plasma cells
Very numerous - suggests fibrous polyp not a lesion described by one of our students.

Remarks:

Dr. Stout's diagnosis:

Rhabdomyoma
Sympathicoma
Mixed mesodermal
Malign mesenchymoma
Patient is a 52-year old white male with a small lesion at the junction of the hard and soft palate. He does not know exactly how long he has had it, but is aware that he has had an ulcerated area for the last 3-4 months. The lesion was totally excised and showed a sub-epithelial circumscribed tumor about 1.5 cm. in diameter.
Patient is a 56 year old Chinese male. This is the first Presb. Hospital admission of this 56 year old Chinese with CC: "Lump in left neck".

PI: Onset 6 weeks ago following an upper respiratory infection, manifested by swelling of left parotid region. Patient was treated with aureomycin and after a month the swelling had almost entirely disappeared, leaving only a 1.5 x 1.5 cm. palpable node at the angle of the mandible.

FX: A firm non-tender 2 x 2 cm. mass just beneath and posterior to left parotid.

On 5-13-54 an operation was performed, and upon dissection it was found that there was a tumor mass included in the parotid gland. This was partially resected without injury to the main branch of the facial nerve.

Gross Path: The specimen removed consisted of a resected portion of left parotid gland measuring 7.5 x 5 x 2.5 cm. On sectioning there was a well circumscribed nodular lesion in the lower pole of the gland measuring 2 cm. in diameter and showing a soft fleshy brownish homogeneous cut surface with 3 small cystic cavities about 3 mm. in diameter. In addition between the upper and lower poles further sectioning showed another 8 to 10 mm. fleshy brownish nodule similar in all respects to that found in the lower pole. In the superior pole there was a third and apparently unrelated lesion measuring 1 cm. in diameter and consisting of small multicystic structures surrounded by dense greyish tissue.

The section submitted is from the large nodule in the lower pole.
The patient is a 20-year-old white female who was seen in May 1953 at which time she complained of a large cervical lymph node about the size of an egg in the deep portions of the right neck. Chest films were negative as was the blood picture and no signs of a primary tumor in the head or neck could be found. The patient was treated with an antibiotic and at that time a heterophile was performed which was positive 1:14. The peripheral blood count was normal, showing no lymphocytosis or monocytosis. Approximately one month later another heterophile was performed which was reported as 1:112 with 56% lymphocytes; however, no absorption tests were performed. A biopsy of a superficial cervical lymph node was attempted. However, the bleeding was so excessive that it was abandoned at that particular time. The superficial lymph node which was biopsied was reported as being a form of reticulo-endothelial hyperplasia.

On September 25, 1953 a heterophile was performed which was positive 1:14 and negative with guinea pig antigen and after absorption with beef red cells was positive 1:7. This was reported as being due to natural Forssman antibodies. The white count was 7,950 with 74% polys, 20 of which were stabes, 22% lymphocytes, 3% monocytes and 1% eosinophiles. Nothing suggestive of mononucleosis or leukemia was seen. Surgical excision of the node was recommended. On October 5, 1953 the node was excised in addition to the adjacent right deep cervical lymph chain. Immediately prior to surgery it was thought that the mass had probably decreased in size. The patient's spleen has never been palpable.

Hyperplasia - lymphatic. Could this be the end result of Myeloma? I doubt it.

No bone marrow study been done.

No Rx indicated.

Would this pt. develop lymphoma? I doubt it.
Patient is a 79-year old female who entered the hospital for the first time on May 26-1953 at 2:15 P.M. with a complaint of abdominal distention. The patient had noticed a gradual increase in size of abdomen over a period of several weeks but hesitated to seek medical examination.

Family History: Non-contributory.

Physical Examination: Enlarged veins apparent in neck. No tonsils, no teeth. The heart sounds were of poor quality. No murmurs, regular rhythm. Abdominal examination showed a hard mass, right lower quadrant, and it was thought that there was considerable ascites present. Pelvic exam. showed masses in both adnexae. Rectal exam. showed hemorrhoids. There was edema of lower extremities.

Clinical Diagnosis: Ovarian tumor, probably malignant.

Abdominal exam. showed a moderate amount of intestinal gas principally in the right colon and small bowel. Calcified fibroids in uterus were thought to be present. Barium enema was negative. Serological test for syphilis was negative. Hematology examination showed moderate anemia, 3,950,000 RBC and 10.9 grams Hgb, 76%. WBC was 14,300 with 89% neutrophiles, 7 lymphs and 4 monos. Urine exam. showed 12-15 pus cells, a rare finely granular cast, one-plus albumen, 1027 specific gravity, occasional Rbc. X-ray examination before operation on May 26th showed what was thought to be an old tuberculous infection involving the left lung. The upper lobe on the left was atelestactic and fibrotic. The right lung was clear.

At operation on May 29th, abdomen was filled with bloody fluid. There was generalized carcinomatosis apparently arising in the ovaries with diffuse spread throughout the abdomen and with metastases to the liver and sub-diaphragmatic space. A palliative hysterectomy and salpingo-oophorectomy was done. Two blood transfusions were given during the operation.

My diagnosis:

Remarks:

Dr. Stout's diagnosis:
A colored female, age 60, developed bleeding and vaginal discharge with an endometrial mass protruding from the cervix. At operation a large polypoid friable tumor mass was found in the uterine cavity attached to the lower anterior part of the body by a short pedicle.

My diagnosis: Tumor cervix + Adenocarcinoma metastatic cells. 

Remarks:

Dr. Stout's diagnosis:
The patient, an 87-year old female, has a story of bleeding from vagina or urethra at odd intervals since the age of 25, at which time a urethral caruncle was said to have been removed. First seen in OPD with history of vaginal bleeding off and on for six months. Examination disclosed an inflamed urethral meatus. Catheterized urine specimen contained an occasional WBC and a rare RBC and cast. Introitus tight and anterior vaginal wall was stony hard and fixed with a small, friable freely bleeding lesion present to palpation at its mid-portion. The wall here is rounded and bulging over what seems to be a tumor lying behind the symphysis. Biopsy from the granulating area contained only granulation tissue.

Because of increasing difficulty in emptying the bladder, cystoscopy was done and a sloughing necrotizing lesion found in the posterior and lateral walls of the bladder. Biopsy and repeat biopsy showed only acute cystitis.

One month later patient complained of a mass about her vagina and examination disclosed a reddish-purple structure the size of a walnut protruding from the vagina, blocking urethral meatus and making catheterization difficult. Manipulation and visualization was difficult and painful. Mass could not be reduced, and was thought to originate in anterior vaginal wall. It was resected readily and is the specimen under consideration.

The specimen received is a sausage-shaped, polypoid mass 3 cm. long and up to 3 cm. in diameter with a relatively smooth, dark reddish-purple, outer surface. It appears to be composed largely of soft blood clot, but near one pole, presumably the point of attachment, irregular stellate masses and bands of moist, friable faintly translucent pale grey tissue are mixed with the soft dark red background.

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My diagnosis: Myomatus - Carcinoma metastatic - terminal
Dr. Stout's diagnosis: 

Remarks: May be wet or this one
Male, age 59. A mass was removed from the abdominal wall 8 years ago, and a diagnosis of carcinoma was made. Following operation patient received 25 x-ray treatments. Two years later there was recurrence, and further excision was followed by more x-ray treatments. Patient was then well until one week before admission when he had pain in the scar and noted another mass.

Physical examination showed a hard mass 2 x 2 inches in diameter in the abdominal wall, under the left costal margin. No other physical findings of interest were noted.

An elliptical incision was made, and a wide segment of skin and tumor mass was completely excised. It was necessary to excise the peritoneum as well, to get beyond the tumor growth. An exploration was done and there was no evidence of intra-abdominal abscess.

Gross specimen measured 10 x 6 x 2 cm. Just above the deep fascia were two similar lesions about 2 cm. from each other, each consisting of poorly demarcated soft, friable, greyish-pink tissue in which there was extensive hemorrhage.

Comparison of slides shows that primary lesion and both recurrences are histologically similar.

My diagnosis: Probably sweat gland car.

Remarks:

Dr. Stout’s diagnosis:
A 69-year old white female who had a pedunculated tumor removed from the anterior chest wall on April 17, 1953.

My diagnosis:

Remarks:

Dr. Stout's diagnosis:
The first PH admission of a 43-year old single white female welder with CC: Dyspnea and pain in chest of 18 years duration, progressive for 1½ years.

PMH: Patient has always been in good health. GU: episode of polyuria 3-4 years ago which responded to unknown medication; has had frequency all her life, nocturia 2-3 times.

PT: Patient gives a vague history of having left anterior chest pain, first noted 18 years ago, occurring initially with pleurisy of one week's duration. The pain has persisted in a rather mild degree, and is described as dull, aching, and is not localized but is aggravated by long hours of work and relieved by rest. For a similar 18-year period she has noted increasing exertional dyspnea which has now progressed to a point where she is unable to walk one block or climb one flight of stairs without stopping during the past year. In the past year she has had episodes of acute tachypnea, awakening her from sleep, which is relieved only by sitting up in bed. She was seen in Group Clinic 2 months before admission where x-ray revealed emphysematous bullae in the left lung, with a marked mediastinal shift to the right. There was also a moderately severe dorsal kyphosis. Other workup included ESR of 15 mm.; Hgb. 14.6, Mazzini neg. EKG was essentially normal. The patient was admitted for further surgical evaluation.

FX: T-100° P-100 regular BP 145/75 R-20

An obese white female looking her stated age, in no acute distress. Neck: trachea markedly deviated to right. Thorax: left side more prominent than right anteriorly; decreased respiratory excursions on left side. Lungs: BS markedly diminished on left, ant. and post., with decrease in tactile fremitus on left, immobility of the diaphragm on left, and tympany to percussion on left; right side clear to P&A. Heart: no cardiac dullness or heart sounds on left; A2 and P2 both heard in right thorax; no murmurs, rubs or gallop. Spine: moderately marked right dorsal kyphoscoliosis. Remainder of FX essentially negative.

LAB: HGB 13.2; WBC 5,950; P-62 (0-7-55); L-29, M-5, E-4. Urine: normal. X-ray of chest: extreme over-distension, probably large bullous emphysema with displacement of trachea and heart to right; extensive fibrotic changes present throughout left lower lobe, as well as some emphysema; right lung clear. Pulmonary function studies: normal values for ventilation, arterial oxygen saturation, and CO₂ tension at rest and following exercise; respiratory dead space within normal limits, as was the index of intrapulmonary mixing; residual volume normal; total capacity reduced to 60% of predicted. Vital capacity 55% of normal. Maximum breathing capacity 70% of predicted normal. These results were interpreted as suggesting that the large air cysts in the left lung were not in communication with the bronchi. Right lung function presumably good.

OPERATION: Pneumonectomy, left. (2-2-54) At operation, the left lung was almost entirely replaced by a large thick-walled cyst which contained numerous nodular and cystic areas.

Gross Description of Pathological Specimen: The specimen is the entire left lung which is distorted by a large cyst measuring 21 cm. from apex to base of lung, 16 cm. in the medial lateral direction. The cyst lies lateral and posterior to the lung and is firmly adherent to the lung especially in the lower lobe where the distinction between lung and cyst wall can no longer be seen. The bronchi are distorted by the cyst but are not narrowed. The bronchus to the lingual portion of the left lower

(continued on next page)
The lobe is surrounded by gray firm nodular tissue similar to that seen in the lumen of the cyst. The outer surface of the lung is smooth and varies from a light pink to black in color with the extreme portions of upper and lower lobe being light pink and crepitant while the remaining portion of the lobes are not crepitant. The outer surface of the cyst is smooth, containing tortuous thin walled blood vessels. The wall of the cyst varies from 1 - 5 mm. in thickness and contains irregular yellow calcified areas. The inner surface of the cyst is divided into many compartments by thin transparent septa that contains yellow hard nodules. Compression of the specimen forces air into many of the smaller cysts. Probing of the bronchi and inner surface of the cyst fails to reveal any communication between the two. The lymph nodes are anthracotic, small. The pulmonary artery and veins show no gross changes.

In retrospect, it becomes apparent that the multilocular cystic changes described above as well as the multiple nodular lesions were all confined to a greatly enlarged upper lobe. The lower lobe can be seen as a compressed and atrophic structure apparently not involved by the above described pathology.

Submitted by: Raffaele Lattes, M.D.

My diagnosis:

Remarks:

Dr. Stout's diagnosis:
Female, 83 years old, who died of arteriosclerotic heart disease. As an incidental finding there was a red mass attached to the right adrenal gland.

My diagnosis: Myeloma.

Dr. Stout's diagnosis:
As the years follow one another and we look back over the collections of cases for these annual seminars, it seems to me that each year the cases grow in complexity and the number of unique examples of recognizable tumors developing in unusual situations multiply. This year is no exception; I find the difficult cases harder to analyze, the unique examples startling, and the whole seminar harder than any of the past ones to present in an intelligent fashion. I wonder why this should be. Most of us have an opportunity to see and familiarize ourselves with a greater variety of tumors than was possible for our predecessors yet obviously we are not doing much better at recognizing tumor types than they did. Perhaps the increase in population as well as the increase in the mean span of life has something to do with it. More people live long enough to develop a great many more tumors. The most baffling group to me are the tumors which grow in children. If I had enough material for sets of slides, I could prepare a seminar group on children which I think would defy your interpretation in each instance. Some day I hope one of you will write a really definitive monograph on the tumors of infancy and childhood. The ones now in existence simply ignore the cases which do not fall into the more common and readily recognizable neoplasms. I should like to make a stab at it but I am too busy ever to have the time and energy to undertake it.
Case No. 1
P&S 45468

Diagnosis: Rhabdomyosarcoma of common bile duct with metastases.

The nature of this interesting tumor I believe can be suspected in retrospect from the biopsy of the polypoid mass in the common bile duct but I feel confident I would not have recognized or even suspected its nature at the time of biopsy. It looks very much like a simple edematous polyp. There is nothing about the stellate cells to suggest rhabdomyosarcoma. It is only the cells immediately beneath the covering mucosa which are rounded and show an unusual number of mitoses which distinguish this tumor from an ordinary polyp. I presume these are probably rhabdomyoblasts. Knowing the idiosyncrasies of the juvenile rhabdomyoblast and remembering the appearance of the grape-like formations of sarcoma botryoides of the pelvic organs, I could guess that this may be a grape sarcoma of the common bile duct but it is only in retrospect that I do so. We know from the recurrence and the metastases that this is indeed a rhabdomyosarcoma. The rounded and racquet-shaped metastatic cells in the lymph node with strongly acidophile cytoplasm, characteristic chondriosomes and rare cross striations are completely convincing.

A sarcoma botryoides of the common bile duct in a child! Who ever heard or even dreamed of such a tumor? I have not searched the literature but it will surprise me very much if it is not unique.

The only cases which we have on record from the vicinity of the common duct are a rhabdomyosarcoma of the liver in a six year old boy from Babies Hospital in our own Medical Center. A 67-year old woman with two tumors in the gall bladder - one a glandular carcinoma and the other a rhabdomyosarcoma - without proof of cross striations from Severance's Emporium in San Antonio. Hugh Edmondson has at least one rhabdomyosarcoma of the liver in his collection for the fascicle on liver tumors. There are a few mesenchymomas of the liver of which one element can be rhabdomyosarcoma but these two are extremely rare.

Arthur Purdy Stout, M.D.
I suppose we have been asked to cope with this rectal case as a sample of one of the many enigmas which form the daily fare of the AFIP. I am not going to be able to solve it, although I am quite willing to discuss some of the easily recognized benign and malignant polypoid tumors of the rectum. It is not adenomatous or carcinoid, nor is it lymphoma, lipoma, endometrioma, leiomyoma, or any of their malignant relatives. So we should ask first: is it epithelial or mesenchymal? From the H & E section this is not easy to determine. When I looked at some of the bizarre tumor cells, I observed some that looked like spider-web cells and I thought of rhabdomyosarcoma. We have three of these in the stomach, one in the duodenum, one in the sigmoid and one in the rectum. The sigmoid tumor grossly somewhat resembled this one because it consisted of several polypoid projections into the lumen. That case, from the Easton Hospital in Pennsylvania, microscopically was composed of large rounded and strap-shaped rhabdomyoblasts which did not at all resemble the cells in this tumor. When I saw H & E and trichrome stains of this tumor I believed that the tumor cells were arranged in cords with practically no reticulin fibers in and around the cells which suggested that the tumor was some kind of a carcinoma. When I saw the Laidlaw preparation, however, I realized that there was a fine reticulin fiber around many of the cells and again I was doubtful. How many fibers can there be about epithelial tumor cells? I wish I knew the answer to this; it would help in evaluating cases. I have the impression that there are not too many fibers for this to be an epithelial tumor.

We have already stated that this does not look like either a primary carcinoma or carcinoid of the rectum. I cannot believe this can be either of them. If this is true it leaves no alternative if it is epithelial than to suppose it is metastatic. I am usually partial to suggesting that an epithelial mucosal metastasis in the gut is a malignant melanoma. I must say, however, that here it cannot be considered more than a bare possibility. Most of the malignant melanomas of the intestinal tract are found in the small intestine where they form single or multiple polypoid projections and cause intussusception. We have records of five cases in the ileum and two in the jejunum. We have only one case in the colon and none in the rectum. I believe this is a very doubtful example indeed, but at least a possibility. If it is metastatic carcinoma I cannot suggest any special primary source more likely than any other. I think it is somewhat more apt to be a carcinoma.
Diagnosis: Angiofibroma of colon.

We have had polypoid tumors in the common duct and the rectum; now we encounter one in the transverse colon of a four year old boy. This one is different from the other two but, like them, is very difficult to interpret. All of the stains, but particularly the Laidlaw preparation, make easily apparent the very large number of capillaries and the very thick dense collagen mantles which ensheathe them. In the granulation tissue which covers part of the surface the capillaries are still more numerous and there are many mononuclear inflammatory cells including plasma cells which I presume are without significance. The bulk of the polypoid tumor is made up of a fibrous stroma. Both the trichrome and Laidlaw stains confirm the impression that this is composed of a great tangle of reticulin fibers running in every direction and a few thicker collagen fibers filling in all the space between the blood vessels. The cells which accompany these fibers are of many shapes but predominantly stellate with acidophile cytoplasmic processes. A number are multinucleate. They do not appear to me to be definitely oriented about the many vessels but simply to fill in the space between them. Where this vascular and fibrous growth is attached to the intestinal wall it passes between the muscle bundles of both the muscularis mucosae and the true muscle coat. Relationships in this region are confused and I cannot tell whether the growth penetrates all the way through to the subserosa or mesocolon but it seems to do so. There is a jumble of large veins, smooth muscle bundles, nerves and fat with the fibrous and vascular tumor intermingled in such a fashion that it is often difficult surely to distinguish between muscle and tumor.

What is the nature of this fibrous and vascular growth? Can it be simply a big granulomatous polyp? Possibly, but it seems to me that the cells are different from ordinary fibroblasts; they are more irregular and the multinucleate forms have more bizarre nuclei. Mitoses are very rare. Yet if they are not fibroblasts, what can they be? The only other cells which occur to me are smooth muscle cells and pericytes. Much as I would like to believe they are either pericytes or leiomyocytes, I cannot say they are sufficiently like either of these cell forms as I know them in fixed tissues to make me willingly accept them as such. Can this growth be compared properly with the angiofibroma of the adolescent male nasopharynx? They have some superficial resemblance to these growths as they are illustrated in Sternberg's paper (Sternberg, S.S.: Pathology of Juvenile Nasopharyngeal Angiofibroma - A Lesion of Adolescent Males, Cancer 7: 15-28, 1954). The cells can be stellate and they may have bizarre multinucleate giant forms. But there are important differences. As far as I am aware no case of nasopharyngeal angiofibroma has had capillaries with thick collagen sheaths like those nor has any been as thickly populated with cells. Of course, also there is the fact that this tumor has developed in a 4-year old boy, - an age much younger than the youngest known angiofibroma of the nasopharynx.

Is this tumor to be regarded as malignant, as some peculiar form of angiosarcoma? Since this is a child and we are dealing with an unknown, it will not do to make a categorical denial. I do not think it is malignant because of its restricted growth, lack of mitoses and nuclei which do not give an impression of anaplasia. I do not think the thick collagen sheaths are any guarantee that

(continued)
the tumor is not malignant, for the earliest hemangiopericytoma I saw had vessels with thick collagen sheaths in the primary growth (Stout, A. P., and Murray, M. R.: Hemangiopericytoma, Ann. Surg. 116: 26-33, 1942, Case 9). Finally, what can this tumor be called? Because it more nearly resembles an angiofibroma than anything else, I suggest calling it a juvenile angiofibroma - I cannot think of any better term unless someone can prove the tumor cells are not fibroblasts.

Arthur Purdy Stout, M.D.
Diagnosis: Odontoma of palate.

Since Saul Kay moved to Virginia, the harvest of extraordinary, bizarre, monstrous, and unusual tumors coming from that state has increased inordinately. He has furnished us with a wide selection of curiosities this year as in the past, and we have chosen this one because I feel sure it will both bemuse you and lead to marked differences of opinion as to its nature. You observe that the nodule is composed of several elements. There is a richly vascular stroma which is quite cellular. In it are thick twisted collagenous bands with rounded cells sparsely scattered, some of them in spaces suggesting lacunae. I have tried to persuade myself that this may be osteoid but I do not think that it is. Another element is epithelium, present in scattered masses generally solid but very occasionally looser and suggesting a stellate reticulum. Very occasionally there are found separate glands which I suppose are palatal serous glands and finally areas where the epithelial strands exhibit epidermoid differentiation with keratinization and pearl formation. But what distinguishes this lesion above all else are the presence of scattered chestnut burr-like asteroid bodies. These are much larger than the phagocyted asteroid bodies found sometimes in sarcoid and other inflammatory granulomatous diseases. They are of different composition also for they have the tinctorial reaction of collagen and like collagen glisten under polarized light. They are found in the cellular stroma, in the osteoid-like tissue and in the epithelium. They are certainly not associated with uric acid or any other crystals, nor are they the sulphur granules of actinomycosis.

Since I had not seen such structures before I was nonplussed at first, but in thinking of the possibilities it occurred to me that this whole complex might be explained on the basis of a tooth germ growth and that these structures might be denticles composed of dentine. I found in a paper by Thoma and Goldman (Thoma, K.H., and Goldman, H.M.: Odontogenic Tumors, Am. J. Path. 22: 433-471, 1946) a tumor classified as a dentinoma composed of bodies like these in a stroma resembling dental pulp. If this interpretation is correct then we may suppose that the epithelial elements of this tumor are ameloblasts, the pseudo-osseous tissue, a kind of soft cementum, the vascular stroma tooth pulp and the chestnut burrs dentine bodies. The whole complex then is what Thoma calls a soft odontogenic mixed tumor. One need not be surprised at finding such a tumor in the palate, for Thoma's dentinoma grew upward from the maxilla and obstructed the nostril.

Arthur Purdy Stout, M. D.
Diagnosis: \textit{Oncocytoma of parotid salivary gland (multiple)}

With this case we complete this year's look at the alimentary tract and its accessory structures. I presume this tumor type is familiar to all of you since it is so distinctive. It is, of course, the tumor usually called oncocytoma. Meza-Chávez proposed to call it oxyphilic granular cell adenoma but that is such a cumbersome title that I shall be surprised if it receives wide acceptance (Meza-Chávez, L.: Oxyphilic Granular Cell Adenoma of the Parotid Gland (Oncocytoma): \textit{Am. J. Path.} 25: 523, 1949). The first case I ever saw was shown to me by Lauren Ackerman when he was in Columbia, Missouri in 1943 and he published it (Ackerman, L. V.: Oncocytoma of the Parotid Gland, \textit{Arch. Path.} 36: 508-511, 1943). In the 1949 session of the A.P.S. Club there was an example of this tumor type furnished by Maurice Richter. This was afterwards published by Dave Stump (Stump, D. J.: Oncocytic Adenoma of the Salivary Glands, \textit{Arch. Path.} 48: 287-296, 1949). I think up to that time most everybody believed that it was a benign tumor of the parotid occurring especially in elderly people and always benign. After tumor types become well known, further information accumulates about them and it is for that reason this case has been included because I have learned some more things about them, as I have no doubt you have also.

Including this present case, we have nine cases called oncocytoma recorded in the Laboratory of Surgical Pathology. The youngest was 49 years; 6 were males, 2 were females, and the age and sex of the other case is unknown. Two of our cases were in the submaxillary gland which is contrary to general experience. This case today had three tumors in the same gland. In a case sent to me by Dr. Boley of the University of Kansas, a 65 year old woman had two oncocytomas - one in the right and the other in the left parotid gland. The question of recurrence of these tumors is raised by a case sent to me by Dr. Lascowski of the Curie Institute in Warsaw, Poland. This was a submaxillary tumor which recurred locally. The slide I sent me was from the third recurrence. As far as I could tell it looked like the other oncocytomas in our group. This case raises the question of malignancy. In a paper published last year, Bauer and Bauer state that they have a parotid oncocytoma which metastasized to lungs, liver, dura and pituitary. (Bauer, W. H., and Bauer, J. D.: Classification of Glandular Tumors of Salivary Glands, \textit{Arch. Path.} 55: 328-346, 1953). The diagnosis was made by F. Leidler. Since this case occurred in the St. Louis area, I presume friend Lauren saw it and will tell us if it is true. I cannot think of any reason why an oncocytoma should not develop into a malignant tumor. If it does so, I wonder if it will be possible to distinguish it from the acinous cell carcinoma. Frank Foote has not made me adopt the term "acinic" which is not found in the dictionaries I have consulted, but he has persuaded me that this malignant tumor form comes from the acinous epithelium. If that is true and it is also true that the oncocytoma comes from the oncocytes in ducts, then an oncocytoma cannot give rise to an acinous cell carcinoma. It will be interesting to learn how to distinguish between a malignant oncocytoma and an acinous cell carcinoma. I presume the latter will have clear spaces in the cell cytoplasm and the oncocytoma will not. I note that in his most recent paper on acinous cell carcinoma, he draws a sharp line between the oncocytoma and the acinous cell carcinoma and does not recognize any relationship at all but he does not give us any hard and fast criteria for distinguishing between the two (Godwin, Foote and Frazell: Acinic Cell Adenocarcinoma of the Parotid Gland, \textit{Am. J. Path.} 30: 465-477, 1954).

Arthur Purdy Stout, M.D.
We have included this example of a peculiar lesion causing enlargement of a lymph node because it has occasioned so much speculation as to its nature. When one first looks at this node it seems to be simply a large node with prominent follicles and rather thick and somewhat fibrosed sinuses. But closer inspection shows that the apparent follicles do not really have any germinal centers at all. Either they consist entirely of lymphocytes or they have in the center one or more capillaries, some fibrous tissue and sometimes cells which resemble reticulum cells. These occasionally form whorls. Sometimes these apparent follicles suggest the appearance of Hassall's corpuscles and sometimes they resemble Malpighian bodies. Very seldom indeed do these bodies resemble ordinary lymph follicles.

When lesions of this sort occur in the mediastinum they have sometimes been called thymomas. Castleman has discussed this in his fascicle on Tumors of the Thymus (Atlas of Tumor Pathology) which is about to appear, and points out that the structures believed to be Hassall's corpuscles are certainly not that. In this discussion he was interested only in rejecting them as thymomas and so did not pursue the question as to what they were beyond saying that he thought the appearance was due to degeneration of the germinal center cells. It may be of interest to tell you of my reaction to the first mediastinal case of this sort which came to me from the AFIP (Acc. 200735). The patient was a 24-year-old male, and his tumor which measured 6 x 7 x 8 cm. was found behind the left pleura and adherent to the 4th, 5th, 6th, and 7th ribs and vertebral bodies. It seemed so far away from the upper anterior mediastinum that I did not give much thought to the thymus but was struck by a superficial resemblance to the spleen. Rafe Lattes later thought this could be a thymoma after he found out that thymomas are not always found in the anatomical site of the thymus. But the question has arisen once more in our minds when the distinction between accessory spleen and hemolymph nodes arose. As far as I am aware, a hemolymph node is an accessory spleen in man. A hemal node (i.e., hemolymph node) is a nodule of lymphatic tissue occurring along the course of a large blood vessel which contains many red blood cells in its sinuses. They are common in ruminants but probably do not occur in man.

Thus coming back to this peculiar node in the neck, it seems improbable that it is accessory spleen, homal node or thymus, and we are left in a state of uncertainty as to its nature. Phil Flynn tells me that Fred Stewart wrote him that Dr. Ewing knew of cases like this which developed lymphosarcoma after a long period of years. He called them malignant lymphadenoma. Fred stated that he had known them to remain solitary for as long as a decade before evidence of multiple sites of involvement occurred. I have read Ewing's account of what he calls lymphadenoma (Ewing, J.: Neoplastic Diseases, W.B. Saunders Co., Philadelphia and London, 1928 - 3nd. Edition pp. 382-395). Figs. 144-146 illustrate a lesion somewhat similar to this case except that the patient had huge enlargement of the nodes on both sides of the neck. I do not know of any such relationship with malignant lymphoma from personal experience and therefore cannot express any opinion.
CASE # 7 (Mrs. Woodson)  
L. P. Stout Club Seminar of 1954

This patient died a few days after operation from pulmonary embolism.

There are two slides to this case #7. One slide contains two pieces of tissue, a small one and a round one and these two are from the primary lesion in the ovary that was removed at operation. The other slide was a portion of abdominal wall and an oval shaped mass of sarcomatous like tissue is taken from the metastatic lesion at the time of autopsy. This metastatic lesion was attached to the ascending colon up near the hepatic flexure by a pedicle and this mass was 5 cm. in diameter. There was no obstruction to the intestines. All over the surface of the mesentery of both large and small bowels were numerous areas of tumor implants.
Diagnosis: Carcinosarcoma of ovary with metastases.

This next group of cases concerns the female pelvic organs. They have certain resemblances and certain differences which may be familiar to all of you but seem to me worthy of discussion. This case concerns a tumor primary in the ovary with metastases. Your sections include both the primary tumor and one of the metastases up under the liver. I think you will observe that the primary tumor is glandular with some papillary tendencies and the formation of some psammoma bodies. The interesting thing about this section concerns the stroma which obviously is also neoplastic and has a myoblastic appearance with strap and racquet shaped cells suggestive of rhabdomyosarcoma. The epithelial glands intermingle with the sarcomatous stroma with very little interruption between the two. The metastases of this tumor are said by Sevie to be largely glandular and papillary. However, the one which is represented by the second slide furnished to you obviously reproduces the appearance of the stromal elements of the primary tumor. Again I can find no cross striations but the general appearance is that of a rhabdomyosarcoma.

The first important decision to be made in this case is to decide whether this is a pure carcinoma in which the carcinoma cells have undergone such a degree of dedifferentiation and metaplasia that they are carcinoma mimicking sarcoma. That can occur in tumors notably in the uterus. I believe, however, in such cases one does not find such a sharp transition with the glandular elements remaining easily recognizable among the sarcoma cells. The second decision concerns whether there were two primary tumors with one invading the other. I think this is improbable because when there are two independent tumors developing side by side in the same organ one intermingles with the other to a very limited and microscopic extent — the two never form one single tumor with both elements mixed as here. Such kissing tumors are referred to as collision tumors. They have been found especially in the stomach and uterus. Can this be a teratomatous growth? I will say no because the sarcomatous element is a solitary one and not several different kinds. I exclude cystosarcoma phyllodes because in that tumor the epithelial elements present do not seem malignant and do not metastasize. I exclude malignant mixed tumors because in them only the epithelial elements are malignant. This leaves us then with only the diagnosis of carcinosarcoma and that is what I think this is. I have not searched the literature so that I do not know whether or not carcinosarcoma of the ovary has been previously reported. It is the first case I have recognized. Excluding some doubtful cases we have records of 16 cases which I am willing to accept. They have the following distribution: Esophagus 3, bronchus 3, breast 2, larynx 1, tonsil 1, nasal cavity 1, parotid 1, stomach 1, uterus 1, prostate 1, laterial costal region 1. The last two presumably were metastatic but the primary sites were not identified. When metastases were observed they were sometimes purely sarcomatous, sometimes mixed but in no instance were the metastases purely carcinomatous.

One bronchial case was reported by Bergmann, M., Ackerman, L.V., and Kemler, R.L.: Carcinosarcoma of the Lung, Cancer 4: 919-929, 1951.

The uterus case was included with the M. D. Anderson Seminar on Muscle Tumors 1950, and one breast case was included in a Tumor Seminar at Memphis, Tenn., in 1950.

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DIAGNOSIS: Malignant teratoma of uterus.

Although this tumor is found in the uterus, the problems connected with it are much like those in the ovarian tumor for here, too, we are faced with a growth that is part glandular and part sarcomatous. The glandular part is quite well differentiated but definitely neoplastic and sufficiently anaplastic to warrant considering it carcinomatous. The stroma varies. In some places, particularly about some of the glandular growths, the tissue is myxoid. In other areas there are many well developed rhabdomyoblasts, some with cross striations and in still others the appearance of the cell groupings and morphology suggest leiomyosarcoma. Should this tumor compounded of carcinoma and sarcoma be called carcinosarcoma? According to my criteria the answer is no. This is a compound growth made up of several kinds of sarcoma intermingled with carcinoma, and for such a mélange I use the term malignant teratoma. The carcinosarcoma has only one malignant sarcomatous element and that has always suggested the appearance of a rhabdomyosarcoma. This is a relatively uncommon tumor form. Excluding the present case, we have only 9 examples of tumors like this. Their ages ranged from 12 to 65 years, and the majority were in the older group. The majority show some cartilage more or less well differentiated. This tumor shows myxoid tissues but no definite cartilage in the sections. The majority of the tumors in this group, as did this tumor, developed bleeding and vaginal discharge and had a polypoid tumor mass projecting into the uterine cavity.

There are several other tumor forms which can form polypoid or fungating tumors projecting into the uterine cavity, suffering necrosis and producing discharge and hemorrhage. These forms included the malignant mesenchymoma composed of two or more sarcomatous forms but with no epithelial elements, collision tumors consisting of a sarcoma and a carcinoma arising independently and simultaneously in the same organ and superficially intermingling the two cancer forms only where they are in contact, the carcinomas with sarcoma-like metaplasia of the epithelial cells, and finally simple fungating carcinomas or leiomyosarcomas growing as solitary fungating neoplasms. All of these tumors are malignant and frequently metastasize and kill.
Diagnosis: Teratoma of vagina.

This case again is a malignant neoplasm compounded of glandular carcinoma with foci of squamous metaplasia and sarcomatous elements among which can be recognized cartilaginous and myxoid areas and undifferentiated cells. There may be some rhabdomyoblasts but I cannot detect them with any assurance. It seems safe therefore to consider this tumor also a teratoma. The question concerns its origin. It seems possible to exclude the uterus as a primary site. Can the adnexal organs also be excluded? The operator seemed to believe so. Do teratomas arise in the vagina? Willis does not record any. McFarland in his survey of dysontogenetic and mixed tumors of the urogenital tract published in 1935 could find only one case originating in the vagina in which the tumor contained cartilage. The penny-pinching policy of the editorial board of S.G. & O. refused to publish the bibliography of over 500 references which Dr. McFarland had painstakingly amassed, so that it is impossible to find out if this is the only case he found or if there were others. Our collection contains only one case of teratoma of the vagina composed of cartilage and epithelial elements and bearing a surprising resemblance to a salivary gland mixed tumor. It came to me from Dr. Laszczewski of the Curie Institute in Warsaw, Poland. I think we may believe, therefore, that in this case we are observing a malignant tumor of the greatest rarity.

Arthur Purdy Stout, M.D.

Diagnosis: Malignant (?) mixed tumor (?) of abdominal wall.

This case raises a problem which keeps recurring and for which there seems to be no solution. Generally the information furnished leaves out some vital essentials and a definitive solution is never reached. In this case, for example, it is essential that we know whether or not the tumor started in the skin. Even if the surgeon or patient said that it did not, I should want to know whether it was superficial, for most surgeons seem to have the naive idea that the word skin means epidermis, so that anything which does not involve the epidermis is subcutaneous. If this growth was altogether deep with no possibility of being in contact with the corium at any point, we could then exclude the possibility of its being a skin adnexal carcinoma or mixed tumor. If it was also away from the umbilicus we could exclude all possibility of its being a urachal carcinoma. Under these circumstances it would have to be called a metastatic tumor if epithelial or mixed, or else some kind of a locally developing sarcoma.

At this point it seems important to discuss the nature and cellular composition of this tumor. I believe you will find it very peculiar. The low power appearance suggests that it is a glandular tumor but analysis with differential stains and high power magnification makes that very unlikely. The cells are not really forming glands at all; any lingering doubts were dispelled from my mind by study of the Laidlaw reticulin stain which shows very delicate fibers between and/or around almost every cell. The mucicarmine material is found only in the stroma, never within the cytoplasm of the cells.

The study therefore seems to exclude the possibility that this is a malignant sweat gland tumor which I was considering at one time. When Cooley and I reported on the sweat gland carcinomas available to us for study up to 1950, we could find only 11, six of which metastasized and five exhibited only progressive infiltrative growth. The succeeding years have brought two more with metastases and three more without, which I am willing to accept without reservation and three other questionable cases. It remains still a very rare tumor, although Dr. Keasbey tells me she has 16 cases. Perhaps the climate of California encourages the growth of sweat gland carcinomas.

I have turned over in my mind what I know about sarcomas of the soft tissues and I must say that if this is a sarcoma it is something new to me. The only varieties which might be considered are synovial sarcoma and mesothelioma but I can only say this tumor does not conform to the appearance of any examples of either of those tumor forms that I have ever seen.

I am left therefore with only one tumor variety which seems at all plausible to me - the mixed tumor. The recurring or malignant mixed tumors can and usually do emphasize their epithelial elements at the expense of, but not necessarily the exclusion of, the stromal elements. I think this tumor could be explained on that basis. If it is primary in the abdominal wall it must have come from sweat glands which are known to be capable of producing mixed tumors. In looking over the mixed tumors of sweat glands recorded in the Laboratory of

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Surgical Pathology at Columbia, I find 35 cases. I exclude 20 cases in the upper lip and 3 in the lower lip because I believe they come from the mucous and serous glands of the mucosa rather than from sweat glands. The distribution of the 35 is as follows: forehead 5, nose 1, cheek 13, mammary region 1, axilla 1, back 2, hand 2, leg 2, foot 3, and 2 questionable ones in the abdominal wall, one of which Lauren Ackerman will recall because he brought it over from his visit to Gricouoff at the Fondation Curie in Paris. Two of the above cases were considered malignant mixed tumors, one in the forehead and one in the cheek. This information I am afraid is not very helpful; it suggests that it is not impossible this tumor might be a mixed tumor and might be malignant, at least it is a recurring tumor.

Arthur Purdy Stout, M.D.

Ref:

Diagnosis: Oat cell carcinoma (?) of anterior thoracic region following oat cell carcinoma of lung (?)
Multicentric basal cell epithelioma of anterior thoracic region
Pigmented mole of anterior thoracic region.

I hope after I have discussed this case, friend Lauren will be kind enough to give us a little more clinical information about it. I am sure he would condemn such reticence on the part of others when submitting a slide to him for diagnosis, so let us present him with our "beef" to chew on. We must thank him in the next breath for an astonishing and peculiar case. Before discussing the nature of this larger pedunculated tumor I must tell you that in the section submitted to me, in the strip of epidermis situated at some distance from the large pedunculated tumor is a tiny patch of multicentric basal cell epithelioma (what the French call Pagetoid epithelioma). I do not believe this is related to the large tumor except by chance it happens to be near it. Much nearer the large tumor but still separated from its pedicle is a microscopic intraepidermal tumor consisting of groups of rounded non-epidermoid cells, two or three of which contain melanin pigment. These cells are present in the epidermis all the way up to the surface but are not observed in the keratinized layer nor are any beneath the epidermis in the papillary layer. These cells must be active. Is it benign or malignant? Since I do not have absolute criteria of malignancy, I must assume the growth is benign. As far as I can see both of these two growths are fortuitous in respect to the large pedunculated tumor. What can be the nature of that?

Let me say at once that it does not look to me like any of the well known primary skin neoplasms - I exclude basal and squamous cell epitheliomas, naevi and melanomas and sebaceous gland carcinomas. I am willing also to exclude lymphosarcoma of all types, Hodgkin's disease, mycosis fungoides, and Spiegler-Fendt sarcoid. Further I cannot think of any sarcomas which I would be willing to include as possibilities for this tumor. This leaves very little indeed for consideration. It has some features of malignant tumor because of the mitoses and the general configuration, not to mention tumor cells in lymphatics and invasion of adjacent tissues.

There are just three tumors which I can bring myself to suggest as possible in this case. One is a tumor composed of sweat gland epithelial cells. Some of the sweat gland adenomas are composed of small rounded cells growing in cords with a fibrovascular framework. These can infiltrate surrounding tissues, while still remaining benign. None, however, has shown many mitoses, nor invaded lymphatics, nor have they formed pedunculated tumors projecting well above the surface. All have been seated deep in the corium and often have projected into the subcutaneous fat. I have never seen a malignant sweat-gland tumor which resembled this one. Consequently if this is a sweat gland carcinoma it is different from any I have seen before and I am reluctant to believe that it is one. Nevertheless I cannot exclude it as a possibility.

The second possibility is a metastasis from an oat cell carcinoma of the lung. I think this is possible if certain peculiar cellular formations I am about to describe are fortuitous and artefactual. They may be and this

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The third tumor which suggests itself is sympathicoblastoma or neuroepithelioma. In a number of places this tumor has twisted cords of cells which are elongated slightly to a cigar shape and which are disposed at right angles to the sinuosity of a cord instead of paralleling it. In other places the cigar shaped cells lie at right angles to the fibrous framework while the cells beyond them are rounded. As far as I can see the cells do not form any pseudo-rosettes. The Laidlaw preparation shows the fibrous and vascular framework but as far as I can see there have been no reticulin fibers formed by the tumor cells. This pattern of growth could characterize either a sympathicoblastoma or a neuroepithelioma. It seems to me very unlikely that either of them could be primary at this site, but either of them could be metastatic. Since sympathicoblastoma is somewhat more likely than neuroepithelioma of a peripheral nerve, I will suggest that as the more probable diagnosis. I am probably foolish to pick this as my choice over a metastatic oat cell carcinoma because the latter is so much more probable in a 69-year old woman, so although sympathicoblastoma is my choice I will be sensible and call this a probable oat cell carcinoma.

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We do not always include cases that are difficult to diagnose in these seminars. Sometimes a spectacular curiosity is provided which illustrates what remarkable results can eventuate from malformations. The present example of congenital cystic disease of the left upper lobe of the lung is unusual; what makes it spectacular is the association with it of countless little hamartomas. The majority are composed entirely of cartilage and the many embryonic bronchial tubes are outside of the cartilage. I presume they do not become included until the hamartomas grow considerably larger. It is interesting to note that the largest one in the section has been secondarily calcified and ossified. I see no anthracotic pigment so that I suppose this lobe never functioned. As usual in congenital cystic disease, hardly any alveoli have been developed and bronchial musculature and sometimes vascular musculature show defective development. The most curious finding of all is the presence of several small rounded bodies in one embryonal tube with an arrangement of their substance into canalicules radiating outward from a central focus in perfect imitation of dentine. In other words, they are denticles of dentine; - what they are doing there I cannot imagine. They only show clearly in a trichrome stain. In my other stained sections they are either absent or so badly broken as to be unidentifiable. The presence of denticles in a congenital cystic lung is unique so far as I know.
Diagnosis: Myeloma of adrenal.

This unusual case seemed to me worthy of your attention because you will not find it mentioned in Ackerman, Ewing or Willis, and in Karsner’s Fascicle on Tumors of the Adrenal you will find reference only to myelolipoma of the adrenal. The cases to which he refers were reported by Giffen, H. K.: Myelolipoma of the Adrenals. Report of Seven Cases, Am. J. Path., 23: 613-625, 1947.

Further reference to the myelolipoma can be found in Dietrich, A., and Siegmund, H.: Die Nebenniere und das Chromaffine System in Henke and Lubarsch: Handbuch der Speziellen Pathologischen Anatomie und Histologie, VIII, 1926, p. 1051. But there is no mention of a pure myeloma as this appears to be. In this tumor cells of the granulocytic series predominate and there is but little evidence of cells of the erythrocytic series. In reported myelolipomas this was an observation which varied from tumor to tumor. But in no case was a myelolipoma associated with any disease or disturbance of the bone marrow, - it was always a purely incidental finding at autopsy, as was this myeloma. This case came to me from Dr. Howard Meyer of the Hackensack, New Jersey, hospital, who found it at autopsy but was unable to identify it.

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