T. PAUL-RAMSEY HOSPITAL and MEDICAL CENTER
ST. PAUL, MINNESOTA 55101

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Anatomic Pathology Seminar

Spring Breast-Fest

St. Paul-Ramsey Hospital and Medical Center

Moderator: Jack Uecker, M.D.

Auditorium - 6:00 p.m. - June 4, 1975
Buffet will be served

CASE #1

This 87 year old female presented with a nontender breast nodule present for about one year. On examination the left breast contained a firm thick 1 cm. tumor. A simple mastectomy was performed and the gross examination of the tumor showed a hard nodule of crisp white fibrous tissue flecked with small yellow areas.

Submitted by: Central Regional Pathology Laboratory
St. Paul, Minnesota

CASE #2

This 42 year old female presented with a firm mass of the right breast. The clinica diagnosis was "fibroma". At surgery a 10 cm. in greatest diameter mass of soft rubb fibrous appearing tissue was submitted.

Submitted by: Department of Pathology
University of North Dakota
Grand Forks, North Dakota

CASE #3

This 18 year old unmarried woman presented with a four week history of an enlarging breast mass located deep to the nipple and slightly toward the outer quadrant. She also noted some "enlarged nodes" underneath her arm but she was otherwise asymptomat A biopsy was performed and a soft poorly defined 2.5 cm. mass was removed. Examinat of the axillary node showed marked hyperplasia but no evidence of tumor.

Submitted by: Wayne Schrader, M.D.
Orlando, Florida

CASE #4

This 48 year old female presented with a right breast mass. The mass was biopsied.

Submitted by: Jerry Baldwin, M.D.
Miller Hospital
St. Paul, Minnesota

CASE #5

This 36 year old was seen because of a protruding nipple which had previously been inverted. A biopsy was performed with a pre-op diagnosis of "Pagets disease".

Submitted by: Section of Surgical Pathology
St. Paul-Ramsey Hospital
St. Paul, Minnesota

CASE #6

This 60 year old female presented to her physician with a history of "serous" dischz from her right nipple. A biopsy was performed and the specimen consisted of a fragm of fibrofatty tissue showing a cyst lined by a fibrous capsule. Within the cyst there was a tan-brown solid tumor measuring up to 1 cm. in diameter.

Submitted by: Department of Pathology
University of North Dakota
Grand Forks, North Dakota

CASE #7

This 68 year old female presented with multiple nodules of the breast. Extensive biopsies were performed and they consisted of fibrofatty tissue which included multiple cysts containing intraductal nodules. In addition, there were multiple areas of stro induration.

Submitted by: Department of Pathology
Mt. Sinai Hospital
Minneapolis, Minnesota

CASE #8

This 65 year old lady had a long history of fibrocystic disease with multiple prior breast aspirations and biopsies. She presented with a palpable mass in the outer quadrant of the left breast. It was nontender and nonfixed but mammagrams were "suggestive" of malignancy.

Submitted by: Donn Leaf, M.D.
Red Wing, Minnesota

CASE #9

This 61 year old female presented with multiple bilateral small rubbery nodules of the breasts. She had multiple previous biopsies for "fibrocystic disease". The breasts were large. The current biopsy tissue consists of a 12 cm. mass of rubbery, fibrofatty tissue which contained multiple cysts measuring up to 1 cm. in diameter. One cyst contained an intraluminal papilloma and throughout the breast there was several dilated ducts filled with a creamy material, surrounded by firm gritty nodule

Submitted by: Central Regional Pathology Laboratory
St. Paul, Minnesota

CASE #10

This middle aged female presented with a left breast mass.

Submitted by: Jerry Baldwin, M.D.
Miller Hospital
St. Paul, Minnesota

CASE #11

This 18 year old had a small left breast mass for 4 to 5 years. It had been noted by numerous examiners including the patient. An excisional biopsy was performed and the tumor consisted of a well circumscribed 1 cm. nodule of yellow tissue.

Submitted by: Section of Surgical Pathology
St. Paul-Ramsey Hospital
St. Paul, Minnesota

No slide available

CASE #12

This 32 year old patient presented to the surgery clinic with a raised light tan 8 mm papillary lesion of the nipple. This had been present for several months and the pati had treated the lesion locally with hand cream and a bandaid. Examination of the subj breast tissue revealed no abnormalities. A biopsy with frozen section examination was performed.

Submitted by: Section of Surgical Pathology
St. Paul-Ramsey Hospital
St. Paul, Minnesota

CASE #13

This 45 year old female has "silicone" injections into both breasts while in Japan in 1966. She had no trouble until approximately five years later when she noted firm slightly tender bilateral nodules in both breasts. She consulted a physician who varified the presence of "suspicious" firm bilateral nodules. Mammagrams were not performed. Bilateral subcutaneous mastectomies were performed. The specimens consiste of irregularly lobulated mases of yellow fatty tissue admixed with extremely dense, firm to rubbery, fibrous connective tissue. There were innumerable cysts present in both breasts and the majority of these contained an oily material. In addition there were multiple nodules of congealed waxy material. Surrounding this waxy material there was severe sclerosis which extended into the subjacent skeletal muscle.

Submitted by: Section of Surgical Pathology
St. Paul-Ramsey Hospital
St. Paul, Minnesota

MY DIAGNOSES

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1- Lobular carcinoma, in situ and invasive
2- Undifferentiated carcinoma with osseous metaplasia
3- Medullary carcinoma
4- Angiosarcoma
5- Intraductal carcinoma (simulating nipple adenoma)
6- Invasive carcinoma, with papillary and mucinous pattern
7- Intraductal papillary carcinoma
8- Intraductal papilloma plus small infiltrating ductal carcinoma
9- Intraductal papillary carcinoma
10- Medullary carcinoma with amyloid stroma (? from thyroid)
11- ?? Granular cell tumor (no slide)
12- Nipple adenoma
13- Silicone mastitis.

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BREAST PATHOLOGY SEMINAR

DIAGNOSES AND DISCUSSION

1. Infiltrating adenocarcinoma with elastosis. This rather ordinary case was included because of the striking elastosis present around islands of tumor and around vessels. It turned out that most of the pathologists attending the meeting had not heard of or did not recognize the elastosis. Elastosis is relatively common in breast cancer, both ductal and lobular. One series has elastosis in breast cancer in up to 85% of the cases. See the article by Lundmark in CANCER, November, 1972 and the article by Azzopardi in CANCER, January, 1974.

2. Undifferentiated carcinoma with chondroid metaplasia. Dr. Wasdahl, who submitted this case, had originally diagnosed the lesion as an extraskeletal chondrosarcoma but after reflection upon the case and after rather direct instructions by his residents he changed the diagnosis to undifferentiated carcinoma. This was the concensus diagnosis of the group in attendance at the meeting. See the paper by Smith and Taylor in the American Journal of Clinical Pathology, May, 1969 and the article by Norris and Taylor in Cancer, July, 1968.

3. Medullary carcinoma. The general subject of breast cancer in younger patients was discussed. Axillary lymph nodes in this particular patient were negative. The possibility of reticulum cell sarcoma was suggested by several participants.

4. Angiosarcoma. This case was also presented in the MSCP Seminar in November, 1974. The general subject of vascular tumors of the breast was discussed and numerous participants stressed the fact that angiosarcomas of the breast often, if not usually, appear harmless, at least in some areas of the neoplasm. However, these are highly malignant tumors, generally of younger women, and the average survival is about two years following diagnosis. We inquired whether or not any of the participants had ever made the diagnosis of hemangioma of the breast and Dr. Rosai volunteered the information that he had recently made that diagnosis as a small incidental finding.

5. Nipple adenoma or subareolar duct adenomatosis. This turned out to be a relatively controversial case. The lesion had been called adenocarcinoma on frozen section and a simple mastectomy was performed. However, upon reviewing the permanent sections it was felt that the diagnosis was more likely a nipple adenoma. Nearly every author who writes about this lesion mentions that it is frequently mistaken for a carcinoma. As a matter of fact, as we photographed this case for the seminar serious doubts arose concerning this case. I still felt that it was a nipple adenoma but that it was somewhat atypical. Dr. Dehner made a strong case for malignancy with this case but the majority of participants felt that it was benign. Certainly this patient has been adequately treated. See the original article by David Jones in CANCER, March, 1955 and a review of Perzin and Lattes in CANCER, April, 1972.

6. Papillary adenocarcinoma with areas of mucinous and cribriform change. Dr. Hellerman volunteered the information that some areas of the neoplasm were typically papillary. However, the block submitted showed a rather solid cribriform pattern on one side of the slide and a mucinous area on the other. Many participants felt that this was a mucinous carcinoma; I felt that it was probably a cribriform or adenoid cystic carcinoma with mucinous degeneration. It was stressed that both papillary carcinoma and adenoid cystic carcinoma, as well as mucinous carcinoma, have a good prognosis.

7. Papillary adenocarcinoma with early invasion. This was also a controversial case, particularly since most of the slides cut from the block did not show any evidence of invasion. However, there were many sections from the original material which did show invasion. The general subject of papillary carcinoma of the breast was discussed and debated. The criteria for malignancy in breast lesions of a papillary nature were reviewed. Dr. Ward officially blessed the diagnosis.

8. Sclerosing papilloma. Most of the participants agreed that the papillary portion of this lesion appeared benign. However, at the base of the lesion there were proliferating cells which were closely packed and somewhat atypical. I interpreted this as an example of a sclerosing papilloma. The subject was discussed by Fenoglio and Lattes in CANCER, March, 1974. Several participants felt that this lesion was malignant. Follow up at this point reveals no evidence of tumor but the final chapter may well not have been written on this patient.

9. Mammary duct ectasia. This is a relatively classic example of a lesion which is somewhat uncommon. This lesion was included because several of our residents were unfamiliar with this entity. Its gross resemblance to carcinoma was also stressed. See the article by Haagenson in CANCER, 1951.

10. Metastatic medullary carcinoma with amyloid stroma, thyroid gland. Every seminar should include at least one weirdo lesion. We are grateful to the group at Miller Hospital for submitting this case. Many of the participants suggested metastatic carcinoid or a variant of lobular carcinoma of the breast. The diagnosis was easy for everyone, in retrospect. I was unable to find any reference for medullary carcinoma of the thyroid metastatic to breast but there is a recent review of metastatic tumors to the breast in CANCER, June, 1972 by Hajdu and Urban. The tumors which most frequently metastasize to the breast are melanoma, lung, ovary, and stomach. In addition, we have seen a renal cell carcinoma metastasize to the breast.

11. Granular cell tumor. We ran out of tissue for this case so did not include the slide in the seminar set. At any rate, the literature is filled with articles on granular cell tumor, not only of the breast but of nearly every other organ in the body. Refer to any recent journal.

12. Nipple adenoma occurring in a male breast. This is a unique case. None of the people present at the meeting had every seen a nipple adenoma in a male breast and it seems that there are only a few cases in the literature. Taylor and Robertson from the AFIP reviewed nipple adenomas in CANCER, August, 1965 and three of their twenty-nine cases were in males. There is also a single case reported in the American Journal of Clinical Pathology, also in August, 1965. This was called the first case reported in a man.

13. Silicone and paraffin granuloma, breast. We though that everyone would appreciate seeing the end results of adulterated silicone after injection into breast tissue. This entity was nicely reviewed by Nosanchuk in the Archives of Surgery, October, 1968. This case is essentially identical to their material. If you dim the light source on your microscope you can readily see the cracked silicone material present in the breast.