

# SQUAMOUS CELL CARCINOMA ARISING IN A DERMOID CYST OF THE OVARY

(A Case Report)

by

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Peterson (1957) collected 147 acceptable examples of cancer among 8038 reported cases of dermoid cyst, an incidence of 1.8%. The most common malignancy is the squamous cell carcinoma accounting for 80% of the total malignant change. (Peterson *et al*, 1956; Peterson, 1957). Adenocarcinomas comprise 7% and sarcomas 8% (Peterson, 1957). The remaining few are carcinoids, (Beten and Yelden 1959; Blackwell and Dockerty, 1946; Mitchell and Dimond, 1949), Chorionepithelioma, malignant struma ovarii (Peterson, 1957) and malignant melanoma (Marcial Rojas and Romriz de Arellane, 1956). Since the malignant change in an ovarian dermoid is rather infrequent, we are reporting a case of dermoid cyst showing malignant transformation to squamous cell carcinoma.

## CASE REPORT

A female aged 58 years, gravida V, para III, had menopause 12 years earlier. She came to the hospital with the chief complaints of a mass and dragging pain in the lower abdomen of 10 months' duration. She also had increased urinary frequency. Her B.P. was normal and other laboratory investigations did not show any abnormality, except for anaemia chest X ray was normal. On examination of the abdomen, a lobulated mass was felt arising from the pelvis. It was tender and mobility of the mass was restricted. Free fluid in abdomen was present. On pelvic examination a lobulated tender mass was felt in the left fornix. Uterus was anteverted, of normal size, mobile and right ovary was normal. A provisional diagnosis of malignant ovarian tumor on left side was made.

On 10-12-79 laparotomy was done. Left ovary was completely replaced by partly cystic and partly solid tumor. Total abdominal hysterectomy with bilateral salpingo oophorectomy was done.

## GROSS PATHOLOGY (B. 695/79)

The left ovarian tumor measured 16 x 14 x 8 cms. and weighed 600 gms. Surface was nodular. The upper part of the tumor was cystic and lower part solid. On opening the the upper part of the cyst, sebaceous material

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and fine hair were seen. A raised nodular area of 2 x 1 cm. was seen in the cystic portion and contained bone and one tooth. The lower portion of the tumor showed a solid fleshy mass with areas of hemorrhages and necrosis measuring 10 x 8 cms. (Fig. 1). The uterus, tubes and right ovary were normal.

#### HISTOPATHOLOGY

Sections studied from the cystic part of the tumor revealed squamous epithelium lining the cyst wall, with hair follicles, sebaceous and sweat glands. Sections studied from the friable soft area revealed infiltrating squamous cell carcinoma with moderate differentiation. (Fig. II)

#### Discussion

Malignant transformation in a previously benign cystic teratoma must be distinguished from a malignant teratoma. In the former we find benign tumor with anaplastic change confined to an area of a specific element. The malignant teratoma, on the other hand, presents wide spread undifferentiated tissue elements with no evidence of its benign nature. In this case the histopathological study revealed mature elements of ectodermal derivatives and isolated areas of squamous cell carcinoma. The malignant change in the present case was confined to the left ovary. Dermoid cysts are reported from all age groups with a high incidence in 3rd and 4th decade (Backwell *et al*, 1946). But in Syamala and Ramalakshmi series (1978) malignant change was noted in 5th and 6th decades as seen in our case. Grossly, most of the tumors reported appear to be benign externally. In this case there was no gross external evidence of malignant change and the histopathology revealed it to be squamous cell carcinoma.

The largest number of epidermoid carcinomas arising in benign cystic teratoma has been reported by Peterson *et al*

(1956). Peterson (1957) has reported metastases in 64%, the most frequent sites being bowel, peritoneum, parametrium, cul-de-sac, omentum, the other ovary, rectum, uterus and bladder. He pointed out that direct extension is a common route of spread of epidermoid carcinoma. Syamala and Ramalakshmi (1978) noted involvement of bowel and omentum in one of their 2 cases reported. But in the present case the cancer was confined only to the left ovary.

#### Summary

A case of squamous cell carcinoma developing in a Dermoid cyst of the ovary is reported.

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See Figs on Art Paper V