term "Malignant Dermoid", which he defines as a teratoid tumor in which derivatives of all three germ layers are present, but which are distinguished by the absence of a typical dermoid basis as evidenced by the sparse development of hair, teeth and bony tissue.

The older authors are quoted to show the great divergence of views regarding the origin of similar rare tumors. E. D. PLASS.

Eisenstaedter: Carcinomatous Dermoid Cysts of the Ovary. *Monatsschrift fuer Geburtshuelfe und Gynaekologie*, 1921, liv, 360.

Of 209 ovarian tumors operated upon, 193 were cystic, and only 16 solid. The cystic tumors comprised: 153 benign cystomas, 24 carcinomatous cystomas, 13 dermoids, and 3 carcinomatous dermoids. Of the 16 solid tumors 2 were fibromas, 1 sarcoma and 4 carcinomas. Thus in a total of 16 dermoids 3 were shown to be carcinomatous. They are described and discussed in this paper. The author accepts O. Frankl's classification of the genesis of cancerous dermoids. They comprise the following types: (1) The carcinoma develops within the dermoid, or (2) it transgresses from the remaining ovarian tissue into the dermoid. In the first group the carcinoma is as old as the dermoid or developed later, primarily in it or metastatically. In the second group the growth proceeds either from a primary solid ovarian carcinoma, or from a malignant adenocystoma, or it represents a metastasis.

HUGO EHRENFEST.

Benthin: Unusual Radiotherapeutic Observations. *Monatsschrift für Geburtshülfe und Gynäkologie*, 1921, liv, 34.

Benthin recites several unusual results apparently resulting from x-ray therapy in malignant conditions.

In the first case the patient had been given nine radium treatments and sixteen x-ray applications, following vaginal hysterectomy for carcinoma of the cervix. Two years later there appeared an ulcer of the rectum. The next year a multilocular ovarian cyst showing carcinomatous degeneration was removed.

The second patient had a vaginal hysterectomy for cervical carcinoma and eighteen months later came to the clinic for radiation because of a recurrence. Intensive treatment continued over four months and was followed by an improvement of the local conditions. An ovarian cyst appeared, however, and grew so rapidly that it was removed and showed marked carcinomatous degeneration. Death occurred within a few months from metastases.

It seems that in these cases the raying of the pelvic tissues bore an etiologic relation to the subsequent development of the ovarian carcinoma.

A third patient had marked pigmentation of the entire body after x-ray and radium treatment following operation for ovarian carcinoma.

The fourth patient was x-rayed in an attempt to control a very severe menorrhagia but in spite of heavy doses there was only a slight effect on the condition and during the three years of intermittent treatment the patient twice became pregnant and bore healthy children. This would indicate a great individual variation on the part of the ovarian tissue to the action of the x-rays. Other authors, Hei-

mann, Baisch and Werner have reported similar cases in which pregnancy occurred in spite of x-ray treatment to relieve metrorrhagia.

The last case developed a "radium ulcer" of the rectum after treatment following operation for malignant disease. Examination of the base of the ulcer showed no evidence of carcinoma. E. D. PLASS.

Reel: Krukenberg Tumor of the Ovary. *Annals of Surgery*, 1921, lxxiii, 481.

Fibrosarcoma ovarii mucocellulare carcinomatodes was first described by Krukenberg in 1896. Since then 56 additional cases have been recorded. In 20 of these, including Reel's case, the primary growth was situated in some portion of the gastrointestinal tract.

The case here reported occurred in a white girl of 21. She was quite well until symptoms suddenly appeared which indicated some acute abdominal condition. The ovarian tumors, as is frequently the case, were bilateral. The initial lesion was probably in the stomach, metastases being found widely distributed.

The patient lived for two months after removal of the ovarian tumors, no attempt having been made to remove the primary focus. R. E. WOBUS.

Major: A Study of the Krukenberg Tumor. *Surgery, Gynecology and Obstetrics*, 1918, xxvii, 195.

Major analyzes the cases of this type heretofore reported and adds an observation of his own. The patient was a colored woman of 40 who came to autopsy after having died from progressive weakness, having lost 80 pounds in weight. The ovaries were the seat of nodular tumors, each about 7x9x7 cm. The anterior surface of the shrunken stomach was covered by wart-like tumors. An enlarged lymph-gland was found at the hilus. A few small tumor growths were seen on the jejunum, but the liver was not involved. Careful study revealed the presence of occasional groups of tumor cells in the pulmonary vessels; in a few places these cells had grown into the lung tissue, forming microscopic metastases.

Major feels that the tumor is essentially a carcinoma which is, in the majority of cases, secondary to carcinoma of the stomach or intestines. The original tumor being a slowly growing scirrhous growth, may be easily overlooked. Surface infection may explain the metastases, but his finding of cells in the blood vessels suggests a spread by way of the blood stream. R. E. WOBUS.

Chapman: Krukenberg Tumor. *Surgery, Gynecology and Obstetrics*, 1920, xxxi, 58.

A girl of 14, who had menstruated once two months previously, was suspected of being pregnant on account of a rapidly growing enlargement of the abdomen. Examination disclosed what appeared to be a lobulated ovarian tumor extending almost to the ensiform. At operation there were found two tumors of almost equal size, one originating from each ovary, weighing six and seven pounds respectively. Microscopic section showed a diffuse myxomatous structure with liquefaction areas and the typical signet ring cells, the whole picture being