symptoms requires operation. Necrosis, which was observed in 3.6 per cent. of the cases, does not increase the danger of operation unless infection is superimposed. Calcareous degeneration was encountered in 2.1 per cent. of the cases. Malignant degeneration, sarcoma, was found in 4 cases, 1.2 per cent. Deaver and L'Heffer are of the opinion that the tendency to the malignant degeneration has been exaggerated, otherwise sarcoma of the uterus would be one of the most frequent diseases, whereas it is comparatively rare. Associated carcinoma of the uterus was found in 11 cases, 3.1 per cent.; 6 involved the body and the cervix. While a cervical carcinoma can hardly be credited to the presence of a myoma in the body of the uterus, the unusual frequency of fundal as compared with cervical carcinoma warrants the assumption that a well-defined number of cases of cancer of the fundus are precipitated by the presence of myomata.

The Formation of the Corpus Luteum.—MEYER (*Archiv f. Gyn.*, 1911, xciii, 54) concludes from a careful histological study that with the ripening of the follicle, prior to the formation of the corpus luteum, the theca cells exhibit a considerable increase in plasma and fat; later the granulosa cells likewise share these changes, but to a smaller degree, and, in addition, undergo slight proliferation. After rupture of the follicle, the theca interna shows a greater infiltration of fat than the epithelium, but this is soon reversed. In the formation of the corpus luteum it is possible to distinguish the early hyperemic stage, with a small amount of capillary rhexis and luteinous transformation of the granulosa epithelium which proliferates and secretes into the lumen. Then follows the stage of granular metamorphosis through vascularization of the epithelial margin which continues to proliferate and secrete; luteinous infiltration becomes more extensive. Thirdly, the menstrual stage, in which after cessation of capillary dilatation, and with the transformation of the contained blood into connective tissue, the epithelial margin is completely enclosed with the formation of a gland of internal secretion. Lastly follows the stage of involution. These stages merge into one another without sharp differentiation, but can be easily recognized microscopically. Since the theca cells present wide variations and are dependent upon extraneous conditions, the recognition of the individual stages must depend upon a study of the epithelium. In the first stage the theca probably acts as a nutrient medium; with the completion of the lutein margin the theca cells serve as a supporting tissue. The corpus luteum is an epithelial organ of internal secretion. The histological characteristics of the corpus luteum of pregnancy are due merely to its longer duration and are of no significance. True ovulation during pregnancy was not observed.

Tuberculosis and Pregnancy.—SCHAUTA (*Monats. f. Geburts. u. Gyn.*, 1911, xxxiii, 265) states that pregnancy exerts a deleterious influence in the great majority of tuberculous women. Even under the most favorable circumstances, dietetic and hygienic treatment of pregnant women is of only questionable value in checking the rapid advances of the disease. It is Schauta's opinion that the indication for an early abortion is given in every case in which the diagnosis of tuberculosis is

definitely established. The termination of pregnancy during the later months is not only useless, but may be harmful, with the exception of those rare cases in which it may be necessary to save the child. As regards the best method of emptying the uterus, he recommends the anterior colporhysterotomy. To prevent further conception, the tubes are doubly ligated and divided at the isthmus and their uterine ends covered over by the round ligaments.

Distention Changes in the Duodenum in Chronic Intestinal Stasis.—In several cases LANE (*Surg., Gyn., and Obstet.*, 1911, xii, 221) has observed distention of the duodenum associated with intestinal stasis, which he at first attributed to the damming back of the contents of the ileum by the obstruction of its termination. Later he was led to conclude that the duodenal distention was due to a compression of its third portion by the strain exerted upon it through the mesentery of the small intestine or by the pull of the jejunum. Duodenal distention is not infrequently associated with ulcer, and the symptoms are similar to those produced by ulcer. Lane presents eleven skiagraphs illustrating a typical case in which posterior gastro-enterostomy was performed.

Radiotherapy in Gynecology.—According to JAUGEAS (*La Gyn.*, January, 1911) the ovaries as well as the thyroid and hypophysis are directly influenced by radiotherapy. This form of treatment is especially adaptable to myomata. Its use depends on the clinically established relation between the ovaries and the development of uterine myomata and on the clinical and experimental results of the action of the x-rays on the ovary. Experiments in animals have shown that exposure of the ovaries to the x-rays is followed by a degeneration of the follicle epithelium, death of the ova, sclerosis of bloodvessels, leading to total disappearance of all follicles. Observations in women have shown that a similar degeneration of follicle epithelium occurs, many follicles being entirely replaced by hyaline tissue. Also small capillary hemorrhages are found in the cortex which might account for some destruction of tissue. But little is definitely known of the action of x-rays on myomata; in tumors with young cells and active karyokinesis the growth may be inhibited as in other neoplasms. Nuclear degeneration, cellular destruction and fine hemorrhages have been observed in myomata after treatment with the x-rays. There are some cases in which radiotherapy has no effect in lessening the hemorrhages, which is an indication for the cessation of treatment. X-rays and surgical treatment should not oppose each other, since each has its indication. In cases of small myomata scattered through the uterine wall, fibrous degeneration of the uterus and of sclerotic uteri in which hemorrhage is the dominant symptom, radiotherapy is indicated; in large myomata of recent growth it may be justifiable if no symptoms of compression, et cetera, demand immediate relief, since the treatment must extend over months. Old, slowly growing tumors are, as a rule, little affected by radiotherapy, and generally require surgical treatment. Results are usually obtained more quickly in women near the menopause than in those younger.