

pain and collapse occurring, led to a diagnosis of ruptured ectopic gestation. The patient was not subjected to operation, and the uterus continued gradually to enlarge. At about the seventh month abdominal section was performed, and abdominal pregnancy was found, the placenta being attached to the intestine over the right pelvic region. Sittner calls attention to the difficulty of diagnosis in cases of abdominal pregnancy, which is frequently not made before operation. In 77 cases of ectopic gestation in Schouta's clinic, the diagnosis of an inflammatory condition in the Fallopian tube was made in 7. When the uterus ruptures in early pregnancy the diagnosis is especially difficult.

When the child is living, operation gives a high mortality, which is gradually lessened after the child dies. The mortality of ectopic gestation without operation is stated as 68 per cent., and 23 per cent. in those operated upon. The death of the fœtus does not entirely do away with danger from placental hemorrhage, as the placental vessels are not completely obliterated for six months after the death of the fœtus. If the diagnosis can be made, it seems probable that early operation while the child lives is least dangerous for the mother. The mortality among children born after ectopic gestation is, during the first twenty-four hours, nineteen times greater than in cases of ectopic pregnancy. These children are ill-developed, and but about 50 per cent. of them reach adult life. Delay in operation is dangerous for the mother, from peritonitis, diseases of the bladder, emaciation, and rupture of the sac. While the complete removal of the placenta has been considered exceedingly dangerous, in 107 cases of ectopic gestation the placenta and membranes were removed in 53; in 54 cases the placenta was left; when it was removed, the mortality was 18.8 per cent.; while in cases in which the placenta was allowed to remain the mortality rose to 57.4 per cent.

Among the difficulties experienced in removing the placenta, in 10 per cent. extensive adhesions were present; the placenta was situated within the folds of the broad ligament in 25 per cent., and attached in an atypical position in the pelvis in 37 per cent.

Sittner's paper is based upon 126 cases in which section was done after the twenty-first week of pregnancy, with a living child. The literature on the subject shows 14 cases in which one operator has twice operated for abdominal pregnancy of full term with a living child. In only 4 instances has the same operator had 3 such cases. Sittner believes that most cases of secondary abdominal pregnancy develop through actual rupture of the muscular tissue of the Fallopian tube, occurring after erosion. This develops gradually, and tends to explain those cases of abdominal pregnancy without symptoms of tubal rupture. When rupture is sudden as the result of violence, the sac of the ovum is loosened and pregnancy ceases to progress.

The Lymphatic Glands in Pregnancy.—MEYER (*Surg., Gyn., and Obstet.*, May, 1907) has studied 59 cases in the obstetric wards of the Johns Hopkins Hospital to determine the condition of the lymphatic glands. These patients were palpated weekly from two to twelve weeks. The greater number of examinations were made before labor. The age of the patients varied from sixteen to forty years. About

25 per cent. were between sixteen and twenty years, 65 per cent. between twenty and thirty, and 10 per cent. between thirty and forty years; 30 of the patients were white, 29 negroes.

For examination, the patient was placed in bed, with little clothing, to secure muscular relaxation and to give the best possible examination. To make the examination as nearly accurate as possible, they were made on the same day of the week and at the same hour in the day. Nine o'clock in the morning was the time chosen. An especial effort was made by palpating on the third day after labor to ascertain the effect produced by lactation upon the axillary and infraclavicular lymphatic glands. Most of the patients were examined but once after labor, some twice, and a few more frequently. When a pelvic infection like tuberculosis was present, the cases were excluded. All of the accessible lymphatic glands were examined except the popliteal. In the axillary it was noted whether the palpable glands were in the pectoral regions at the bottom of the axilla or in both regions. It was found useless to attempt to count definitely the number of glands in each region or group. The main question was to ascertain the size of the glands and, as far as possible, their consistence. Examinations were made independently of the patient's previous history. The patient, however, was questioned concerning the symptoms of tuberculosis of the glands, affections of the breasts, skin, teeth, scalp, sore throat, tonsillitis, and venereal disease.

The following is a summary of the results obtained: The total number of cases being 59, in but 1 of these patients could no glands be found upon examination. In none of the patients were the glands palpable in all the regions examined; in 98.3 per cent. of the cases, at some time the axillary glands could be distinguished; in the same percentage of cases the inguinal glands were also palpable at some time; in 74.6 per cent. the submaxillary glands could sometimes be felt; in 66.1 per cent. the axillary glands could be distinguished at every examination; in 62.7 per cent. the inguinal glands; in 44.2 per cent. the subaxillary glands; the supratrochlear were palpable in 30.5 per cent.; the posterior auricular in 10.1 per cent.; the superficial cervical glands in 5 per cent.; the suprahyoid in 1.7 per cent.; a progressive enlargement of the axillary glands was observed in 25.4 per cent.; in the inguinal 15.2 per cent.

Lactation caused enlargement of the axillary glands in 62.5 per cent. These glands could not be palpated in the second week of the puerperal period in one patient. Two weeks before delivery in one patient the axillary glands were enlarged and tender. After delivery the inguinal glands decreased in size in 21.6 per cent.

It was interesting to observe that the lymphatics were not symmetrical in the two sides of the body. The differences were greatest in the axillary, submaxillary, and supratrochlear glands, and much less in the inguinal region. There were two patients in whom the glands could not be palpated.

The first was a white woman, aged twenty-nine years, the mother of five children. Her last labor was complicated by manual removal of the placenta. She had bad children's diseases and an abortion, and the placenta had been manually removed at previous labors. This patient was under observation for seventeen days only. On two examinations no glands could be palpated.

The second case was that of a young negress aged sixteen years, rachitic, in whom no glands could be palpated on two successive examinations. During the third the right axillary glands were distinct, the inguinal glands barely perceptible. At the fourth examination the axillary and inguinal glands of both sides were palpable, but small. The axillary glands could not be detected sixteen days after labor, although the mother nursed her child. Four weeks after labor the inguinal glands of the right side could not be observed. The patient was delivered by pubiotomy, and the inguinal glands of the left side on which the operation was done were easily palpable. Engorged breasts invariably cause tenderness of the axillary glands, either before or after labor. Affections of the teeth or throat cause enlargement of the submaxillary glands. It could not be definitely decided whether the enlargement of the axillary lymphatics was due primarily to changes in the mammary glands or to pregnancy itself. In one case in which lobules of the mammary gland were found in the axilla, engorgement of the breasts was accompanied by sudden enlargement in the lymphatics. These glands decreased in size as the breasts grew smaller. Very often when lactation was developed the pectoral glands were strikingly enlarged, while those in the depths of the axilla were only slightly affected. It seems probable that the lymphatic glands of the whole body must be affected by pregnancy, but these changes are slight, gradual, and often transient, and enlargement which can be clearly detected seems to be caused by local conditions resulting from pregnancy.

The changes in the inguinal glands seem to be based primarily upon the results of pressure from the lower abdomen and pelvis. Age and multiparity seem to have no influence upon the lymphatic glands. Leucorrhœa before labor, injury at birth, obstetric operations, fever in the puerperal period, but not necessarily, produce changes in the lymphatics. In 1 case in which the child had ophthalmia, and the mother a well-marked leucorrhœa, the inguinal glands were enlarged three days after labor. This enlargement was temporary only, and soon disappeared.

We may explain the fact that the inguinal glands were not enlarged in patients that had tears in the perineum and vagina by aseptic and antiseptic methods employed at labor. It was observed that the inguinal glands were always more firm and flat than the axillary; the submaxillary were oval in shape and hard. The inguinal glands, however, undergo an early sclerosis, and possibly the changes in these glands had resulted from a previous venereal infection.

A comparison of the races shows that in the negress the lymphatic glands were larger in every region where they could be palpated. Progressive enlargement of the axillary glands was noted in 30 per cent. among negroes, and in 17 per cent. among the whites. These glands increased with beginning lactation more frequently among the negroes than the whites.

In giving his summary and conclusions, Meyer states the points already noted. He finds that no general enlargement of the lymphatic glands was observed in pregnancy. The enlargement noticed in the maxillary and submaxillary regions was due to local causes in the axilla and groin, induced by pregnancy; in the case of the submaxillary glands to the lesions of the teeth, gums, mouth, and throat. These

differences are thought to depend on the fact that the breasts were brought into active function, while the mouth, teeth, and scalp are very frequently neglected and the site of pathological conditions. In none of these cases could it be observed that new lymphatics developed during pregnancy.

GYNECOLOGY.

UNDER THE CHARGE OF

J. WESLEY BOVÉE, M.D.,

PROFESSOR OF GYNECOLOGY IN THE GEORGE WASHINGTON UNIVERSITY, WASHINGTON, D. C.

The Histological and Clinical Significance of Malignant Chorioepithelioma.—SCHMAUCH (*Surg., Gyn., and Obst.*, 1907, v, 259) considers this subject very fully and declares that not always is chorioepithelioma malignant. Polano has expressed the belief, after a very careful analysis of all the cases of this disease in which successful operations had been performed, that 50 per cent. of the patients would have recovered without operation. Schmauch believes that every case of so-called surgical cure would have recovered spontaneously. He sums up as follows: The chorioepithelial proliferations described in literature as chorioepithelioma malignum have nothing in common with a malignant growth, as generally interpreted. On the other hand, the whole doctrine of chorioepithelioma proves a great support of Ribbert's theory of the development of carcinoma. Epithelial cell complexes, torn from their origin and deported, proliferate and form a kind of autonomous growth. There is only a gradual difference between the simple invasion of the uterine muscles by villi and their sequels, such as adherent placenta, the common and destructive placental polyp, and the common and destructive mole; between the localized chorioepithelial growths, limited to the uterus and the placental region, and the villous infarcts, developed by deportation of villi; and finally between those cases in which the lungs are able to retain and master the scattered foetal cells (mostly syncytial and atypical forms), and the typical chorioepithelioma malignum, which becomes generalized through general metastases. Only the latter two types deserve the name of malignant chorioepithelioma.

In recent publications concerning chorioepitheliomatous proliferations in the male, a tendency is to be noticed to regard those cases of generalized chorioepithelioma, in which the uterus and adnexa proved free from growth, as of teratoid genesis. However, as the connection with pregnancy is an established fact, we have no right to hunt for complicated theories. In many of the cases, in which the uterus was free from growth, a closer examination probably would have revealed smaller neoplastic foci in the parametrium. All the enumerated conditions are sequels of pregnancy. We deal with proliferations that trespass the physiological limits necessary for the development of the fertilized ovum and therefore become pathological. Foetal cells and villi, which normally invade the uterine mucosa to bring about fixation of the ovum