usually the first glands to enlarge. In considerably over one half of all cases these glands were enlarged first. The right femoral and inguinal glands were primarily enlarged nearly three times as often as the corresponding glands on the left side. It was unusual to be able to locate any fresh wounds of the extremity which appeared to be the point of entry of the infection. It was very common, however, to find skin lesions involving legs and thighs. Dhobie itch (so called) is very common among the natives, and the crotch is a favorite site for this infection. There is the possibility of introduction of the plague bacilli through infection of these areas (in which the epidermis is broken) by scratching. (As most people are right-handed, it may be possible that they are more inclined to scratch the right thigh than the left.)

It would be of interest to know if in other epidemics the right inguinal glands were *primarily* involved as frequently as in those cases which we studied in the Manila epidemic. Fleas and mosquitoes are always abundant in the Philippine Islands. Almost all cases of plague which came to autopsy showed evidence of bites by these pests. The possibility of the spread of plague by insects has been shown by the Japanese and other observers. It does not seem probable that mosquitoes play any part in the dissemination of the plague.

Objection has been made by some to the puncture of a plague gland with the hypodermic needle. These observers claim there is danger of causing general infection by this method from rupture or injury of a blood vessel, which would allow the plague bacilli to enter vessel and, by it, the general circulation. I think that this objection to the use of the aspiration method for diagnostic purposes is based more on theoretical than on practical grounds. I believe it much *safer* for both the patient and operator than the incision method as advocated by some.

Clinical Department.

A CASE OF RETROPERITONEAL LYMPHANGIOSARCOMA; OPERATION; RECOVERY — NO RECURRENCE AFTER TWO YEARS.[1]

BY T. B. LUND, M. D., BOSTON.

On February 13, 1899, I saw, in consultation with Dr. W. T. Patch, of Boston, G. W. B., a salesman, fifty-eight years of age, who had been obliged to give up his work by an attack of influenza in December, 1898. The attack of influenza had left him weak and miserable and he had, during January, 1899, suffered from pain in the epigastrium, extending into the left side and back. Two weeks before I saw him he had a sudden attack of pain in the epigastrium, with vomiting. His bowels had been very loose during his illness, and his movements occasionally tinged with blood. He thought he had lost eighteen to twenty pounds in the last two months. His only previous illness had been an attack of typhoid fever eight years ago, and he was in good health when attacked by influenza.

We found him in bed at his home, a rather florid, flabby-looking man, with a temperature of 99.4°, pulse 80, and of fair strength, lips and extremities rather blue. His abdomen was lax, tympanitic, and not markedly tender. In the left lumbar and hypochondriac regions, extending inward as far as the median line, was a rounded, fluctuating tumor, larger in size than a fetal head at term. The tumor, from its location, suggested a tumor of the left kidney, and its fluctuation suggested a hydronephrosis. Such a diagnosis also was consistent with its recent appearance and unusually rapid growth. Mr. B. was brought to the City Hospital, and rested comfortably in bed for a few days, having no pain, and a normal pulse and temperature. The urine showed no albumin or evidence of renal disease.

On February 18th he was given ether, and by means of the Harris urine separator an attempt was made to obtain the urine from each kidney. The specimens obtained from each side of the instrument varied only in that one contained a larger percentage of urea than the other. Pressure upon the tumor seemed to cause a faster flow of urine from the left side of the instrument. The tumor, repeatedly aspirated through the loin, gave no fluid except a few drops of blood.

Under the circumstances it was thought best to perform an exploratory operation and deal with the tumor according to the conditions as found. The means so far employed had not sufficed to clear up the diagnosis, but had rendered that of hydronephrosis improbable, and that of a tumor of the kidney, which would seem from its soft consistency and rapid growth to be malignant in character, more probable. Therefore on February 23, 1899, the patient was again etherized, placed on the right side with the body flexed over a sand bag, and an incision was made from the tip of the twelfth rib to the crest of the ilium, parallel to the outer border of the erector spinæ. After incising the transversalis fascia, there was found in the retroperitoneal space, apparently below the kidney, the surface of a large, fluctuating tumor, which consisted of a fibrous sac, over the surface of which were spread several very large veins, running in a direction parallel to the spine. Aspiration of the tumor yielding only a few drops of blood, an incision was made into the sac, and it was found to contain a soft, dark-red, malignant-looking material, having the appearance and consistency of currant jelly. The incision was then enlarged sufficiently to admit the hand, and a very large quantity, more than a quart, of this red, jelly-like material removed with the hand and a large curette from the interior of the sac, which appeared to extend upward and forward in front of the kidney. There was considerable hemorrhage from the interior of the sac, and the patient col-

[1] Read before the Surgical Section of the Suffolk District Medical Society, February 6, 1901.

lapsed and became pulseless, so that it was evidently impracticable to attempt to remove the sac, which was therefore washed out, rapidly packed with several strips of iodoform gauze, and the wound partially sutured. Subcutaneous infusion of normal salt solution was then performed, and under this, and stimulants given subcutaneously and by the rectum, the patient gradually came up, and by evening had a pulse of 140. During the next few days he did well, and the course of the wound was aseptic. The pathologist's report, by Dr. F. B. Mallory, was as follows:

Microscopically the tumor is very cellular. It is largely made up of long, narrow, branching canals or spaces, lined for the most part with low, flattened cells; in places, however, the cells are taller and approach the cuboidal shape. The canals contain an almost perfectly homogeneous material. In parts of the tumor the cells are packed very closely together, so that little or no evidence of spaces can be made out, and the cells assume more or less of a spindle shape. The connective tissue stroma is slight in amount, but contains many dilated lymph spaces, which, like the canals first mentioned, contain a homogeneous material, and in places many lymphoid and plasma cells.

Diagnosis.— Lymphangiosarcoma, or perhaps better, lymphangio-endothelioma.

We had here to do with a tumor of which the rapid growth, the vascular appearance of the covering sac, the macroscopical appearance, and the microscopical examination confirmed the diagnosis of malignancy. It was also in the highest degree probable that we had not accomplished its complete removal, both because we had not excised the fibrous sac, and had perhaps left some fragments of the jelly-like contents adherent to the interior of the sac. Therefore, in view of the probability of recurrence, it was determined to try the erysipelas and prodigiosus toxins of Coley. On March 14th, the patient being in fair condition, and the wound reduced to a clean granulating sinus with slight serous discharge, 1 minim of the serum was given. It was gradually increased to 10 minims, but on April 14th, as the patient, who had developed a right femoral phlebitis, had a slight cough and pain in the chest, seemed in a critical condition, and as several small abscesses had developed at the site of the injections, it was deemed wiser to discontinue the administration of the toxins.

After this the patient made a gradual recovery, left the hospital on April 24th, and after spending the summer in western New York, returned to Boston restored to health, and resumed his employment as a salesman in one of the large department stores. He has been regularly engaged in his employment since, has gained markedly in weight and strength, and suffers only from swelling of the right leg, which is undoubtedly one of the results of the phlebitis which followed the operation. There is no evidence of the recurrence of the tumor at the present date, two years after the operation.

The case is reported on account of the rarity with which a tumor of malignant macroscopical and microscopical appearance is cured by operation, and goes to show that all tumors of malignant appearance and rapid growth are not, at least, actively malignant. It does not seem to me probable that the treatment by the mixed toxins had anything to do with the non-recurrence in this case, as, owing to its apparent bad effect upon the patient's general condition, the toxins were given only in small amounts and for a comparatively short time.

VOMITING OF PREGNANCY. — SUSPENSION OF PREGNANT UTERUS. — EXTRA-UTERINE PREGNANCY. — OPERATION FOR FIBROIDS.

REPORTED BY J. OSWALD VOGEL, M.D.,
From the Service of Frederick William Johnson, M.D.

CASE I. *Vomiting of Pregnancy.*—Nellie C., twenty-one, single. Entered the medical service of the Carney Hospital, September 28, 1900, with the following history: For the past four months has had poor appetite, with occasional nausea and belching after eating. Ten days ago the patient vomited in the morning and several times during the day. There was no blood in the vomitus. The vomiting has continued ever since, coming on both during the day and during the night. Has lost about 8 pounds, although the appetite is fair. Bowels constipated. Physical examination was negative throughout. The white count was 8,200. The urine was acid, of a specific gravity of 1,012; no albumin, no sugar. Since entrance the patient has vomited repeatedly, irrespective of time and feeding. No blood in vomitus; no pain; temperature and pulse normal; no epigastric pain or tenderness; no sign in breasts of pregnancy. Rectal feeding was ordered. By mouth oxalate of serium and bismuth subnitrate, and by the rectum $1\frac{1}{2}$ grain of cocaine were given. No effect was produced on the vomiting.

October 3d. Dr. Johnson found the uterus enlarged and somewhat to the right side of the pelvis. Cervix soft; violet color of vagina well marked. The diagnosis of probable pregnancy was made.

October 6th. In spite of every variety of treatment, the vomiting still continued, everything taken by the mouth being promptly rejected. The patient first menstruated at fifteen. Regular every four weeks until she came to this country in November, 1899, when she did not menstruate for two months. Was then regular up to June, 1900, when she did not flow for six weeks. Was unwell in July and August; but has not flowed any since August 20.

October 11th. When etherized, a positive diagnosis of pregnancy was made. The cervix was slowly and carefully dilated to the width of an inch. Then the cervical canal was thoroughly painted with Churchill's tincture of iodine from external os to inside internal os.

October 12th. Some vomiting from the ether. On rectal feeding.

October 13th. Vomited once. Rectal feeding stopped. Semi-solid food given.

October 15th. Was put on house diet.

October 18th. No trouble in retaining all kinds