wall: Left ventricle .8 to 1.3 cubic centimetres in thickness (normal 1.1 to 1.4). Under area of endocardial dilatation from 4 to 5 centimetres, Right ventricle dilated. Tricuspid orifice 12.5 centimetres (normal 12 centimetres). Walls .2 to .4 centimetre thick (normal .5 to .7). Endocardium smooth, translucent. Valves show nothing abnormal. Both auricles dilated and walls thickened. In right auricle are two old red clots in the folds of the pectinate muscle. The left coronary shows nodular projections throughout its course. Some of the areas are opaque, but none show calcification. The lumen of the right coronary at about 2.5 centimetres from its origin shows a sudden diminution in size, and is transformed into a fibrous chord, through which the canal could not be followed. This constriction extends for 1.2 centimetres and suddenly stops—the lumen of the vessel immediately beyond being larger than the proximal portion. Except for this area of constriction the vessel shows a less degree of sclerotic change than does the left coronary.

Microscopical examination of branches of the coronary arteries shows arteriosclerotic areas, many of which are in the proliferative stage, while most show degenerative changes in the new tissue. Microscopical examination of the affected area in wall of left ventricle shows a proliferative endomyocarditis. Most of the inner layer of heart muscle has been replaced by dense fibrous tissue, and the opaque endocardial layer described is made up of this tissue, with few islands of muscle substance. The muscle fibres show hyaline degeneration and many exhibit a separation of the primary fibrils. In the longitudinal sections segmentation of fibres, oftentimes with considerable displacement, is everywhere present. This change is more marked in the comparatively normal muscle fibres than in those imbedded in the inflammatory tissue. Sections of venricular wall, from other areas, show a slight diffuse chronic myocarditis with muscular segmentation. Aorta shows nodular arteriosclerosis affecting principally the arc. Nodules are discrete and become fewer in number below the arch. One focus at commencement of thoracic aorta is covered with a fibrous plaque, which has lost some of its elasticity, judged by gross tests. Microscopical examination shows an arteriosclerosis, which in most nodules is in the late stage of proliferation, with hyaline degeneration of new tissue. Few patches show complete fatty metamorphosis beneath the endothelium. Splenic artery is tortuous and generally thickened, with no prominent nodules. Endothelial coat granular. Renal arteries show nodular thickenings; endothelium smooth.

CONCLUSIONS.

We have to do with a generalized arteriosclerosis, affecting vessels of medium and small size particularly.

The localization of the extreme process in a portion of the wall of left ventricle is undoubtedly dependent upon the obliteration of the right coronary artery, the area affected representing the distribution of the terminal branches of that vessel.

The muscular segmentation, which was found generally throughout heart muscle has rarely been described except in connection with acute diseases. It has always been a question whether the process was not a post-mortem change. In this case the autopsy was performed only twenty hours post mortem and the tissues immediately placed in fixied fluids.

The absence of cardiac murmurs is remarkable, as, judging from the post-mortem picture, it would have been impossible for the flaps of the mitral valve to meet unless systole were accompanied by extreme distortion of the left ventricle. The absence of pain is also a remarkable feature.

Clinical Department.

CYSTS IN THE ABDOMINAL WALL STRUCTURALLY IDENTICAL WITH OVARIAN CYSTS.

BY JOHN HOMANS, M.D., BOSTON,
Lecturer in Harvard College on Ovarian Tumors.

I was much surprised while operating in June, 1899, on a very old-standing enormous adherent ovarian cyst, weighing 102 pounds, to find a large cyst in the abdominal walls in the epigastric regions, entirely distinct from the ovarian tumor but of the same character. The universal dense adhesions complicated the relations of the ovarian tumor so much that this independent cyst merely attracted my attention and surprise. I did not investigate the relations of the extraneous cyst, as the operation was a laborious and difficult one demanding my whole attention.

When, however, I saw the patient again in August, 1899, I was astonished to see various cysts, entirely independent of one another and of the abdominal contents, scattered about in the abdominal walls. This appearance was something entirely unique in my experience. There were at least four cysts in the abdominal parieties, varying in size from that of a horse chestnut to that of an orange. One of these cysts I cut out and sent to the pathological department of Harvard College and received the following report from Dr. R. B. Greenough, who was taking the place of Dr. W. F. Whitney: "Of abdominal walls, microscope shows a dense fibrous tissue and fat and muscle, with a small area of more cellular fibrous tissue in which there appear epithelial structures of the type of ovarian cystadenomata; a single layer of cylindrical cells forming irregular gland acini. Malignant cyst-adenomata of ovary. Oblasheus mentions a similar case in which the anatomical structure closely resembled a glandular ovarian cyst, and in his case, as in mine, the abdomen also contained an ovarian cyst.

The clinical features of the case, which are interesting from the enormous size of the tumor and its slow growth, are as follows: Mrs. G., thirty-nine years old, when she first consulted me on January 15, 1889, had a large ovarian tumor. By March 3, 1892, the tumor was still larger and her umbilical girth was 51 inches. I estimated the weight of the tumor at about 63 pounds. I saw her again November 20, 1895. Her umbilical girth was 53 1/2 inches. She moved about easily, although somewhat embarrassed by the weight of the tumor. She had not emaciated notably in the clavicular, facial or humeral regions. Her weight was 209 pounds, and she was much taller than the average woman. In June, 1899, she came to my office again, and her size was so great that the front of her abdomen almost touched the front of the

coupé in which she sat. I removed the ovarian tumor on June 14, 1899, and will simply say that the tumor and its contents weighed 102 pounds, that it was very adherent and that there was an independent cyst in the epigastric region distinct from the ovarian tumor and imbedded in the abdominal parieties. She recovered rapidly, and went home well July 12, 1899.

Dr. Whitney reported the tumor to be a cystadenoma of the ovary.

On August 28th I saw her again. She was enormously distended and in great distress, crying out with pain and discomfort. About 30 pounds of ascitic fluid were removed by an incision through the old scar. The intestines were chronically inflamed, red and thickened. Several cysts were found in the abdominal walls; one to the right of the umbilicus was emptied of its thick, ovarian-like fluid and its smoothly-lined cavity was packed with gauze in hopes of obliterating it. There was another one near the umbilicus the size of a butternut, and at least one or two others larger. One cyst removed for examination was sent to the Medical College. The report of its character has been given above. The patient was relieved of her pain and distress and bid fair to recover, but died on September 1st rather suddenly, apparently from a thrombus of the ankles was allowed. From this case and that of Olshausen it seems that persons with ovarian tumors within the abdomen may have others like them developed in the abdominal walls.

A CASE OF CÉSAREAN SECTION.

BY THOMAS KITTMERIE, M.D., SALEM, MASS.

Mrs. M. M., twenty-eight years old, was sent to the Salem Hospital at seven o'clock in the morning of January 31, 1900, by Drs. Mignault and Daniel R. Brown. She had been in labor twenty-four hours; the pelvis was very narrow, the head would not engage, and could not be reached by forceps. The woman was in excellent condition, having a normal temperature, and pulse of less than 100. She was immediately prepared for abdominal section. She was given a thin surgical bath; the abdomen was scrubbed; permanganate of potassium and oxalic acid were applied, also ether and absolute alcohol. The abdomen was then covered with towels wrung out in 1,000 bichloride solution. She was given one-thirtieth grain of strychnia, hypodermically, and catheterized. The vagina was rendered antiseptic by soap and water, and a 1,000 bichloride solution.

Instruments, dressings and all the accessories of an abdominal operation were sterilized in the usual way by steaming and boiling, and the hands and arms of the operator and assistants rendered antiseptic by scrubbing and rinsing, and then treating with chloride of lime and carbonate of soda.

With Dr. Elliot, house officer at the Salem Hospital, to assist me in the operation, Dr. Edward L. Pierson to hold the broad ligaments, and Dr. Ara N. Sargent to take the child, the patient was anesthetized, and the operation began at a little after eight o'clock. A median incision was made, from three inches above the symphysis pubis to half-way between the umbilicus and ensiform cartilage (about ten inches), and even this long incision made an opening barely large enough to deliver the uterus. The uterus was lifted out of the abdominal cavity and surrounded by warm moist towels; sterile gauge strips were then packed into the abdominal wound to prevent the entrance of blood and meconium, while Dr. Pierson grasped the broad ligaments from behind. An incision in the uterine wall was made, extending from just below the fundus to near the junction of the cervix and the body of the uterus. As the muscular tissue was cut by the scalpel it retracted immediately, leaving bevelled edges to the wound in the uterine wall, and this bevelling of the edges caused some difficulty in closing the incision later on. At a point just above the junction of the cervix a vessel of considerable size was cut (probably one of the uterine sinuses), from which there was, for a moment, a considerable hemorrhage. An attempt to control it with the artery forceps failed, probably from retraction within the muscular tissue; but while the attempt was being made, it ceased and did not recur. The left shoulder of the child presented in the wound (the head being in the right upper part of the uterus, with face to the back), and with some little difficulty the child was lifted out through the incision, which was barely long enough, although as long as it could be made with safety, was immediately handed to Dr. Sargent; the finger was easily passed beneath the placenta, which was attached to the left posterior wall of the uterus; the placenta was carefully peeled off, and the child, with placenta attached, taken by Dr. Sargent, who succeeded, with little difficulty, in establishing respiration and making the child cry. The child, a male, weighed eight and one-half pounds, was well nourished, and in normal condition.

By the time the child and placenta had been taken away, the uterus had contracted to the size of a coconut, and was hard and firm. The uterus was flushed with normal salt solution, both within the body and through the os into the vagina. There was practically no bleeding from the cavity of the uterus or from the wound. As no kangaroo tenon of sufficient size was at hand, four interrupted silkworm-gut sutures (boiled until they were as soft as ordinary silk) were passed through the muscular wall of the uterus, and the edges of the wound brought into apposition. Owing to the bevelled edges previously spoken of, there was some separation of the superficial part of the incision, which necessitated numerous sutures in the peritoneal coat. These last sutures were of fine intestinal silk, and were interrupted.

The whole uterus was flushed with normal salt solution and dropped back into the abdomen. When the deep sutures were in place, but before they were tied, thirty minims of ergotelin were given hypodermically. The abdominal wound was closed with interrupted silkworm-gut sutures, the abdomen bathed with sterile water, and the usual sterile abdominal dressing applied. The patient was strong and full throughout the operation, and rose but little above the 80. There was absolutely no shock. The patient was placed in bed, with a pillow beneath the knees, and the foot of the bed raised. At the end of a few hours the foot of the bed was lowered to its natural level, in order not to interfere with the drainage from the vagina.

There was rapid recovery from the ether, and there was no vomiting. The patient was given hot water,