which are classical elements in the diagnosis of malignant conditions, may be explained in this case by the mental worry of the patient, which is liable to reduce weight, and by the beginning of infection of the epidermoid.

3. Every specimen removed by surgeons should be carefully examined microscopically. At the time of the operation the nodule did not impress the surgeon as being malignant, yet a positive diagnosis could not be made at that time. It is of primary importance that a microscope should be resorted to and the final diagnosis based on the histo-pathologic findings only. Had not this specimen been examined microscopically the case would probably have been recorded as one of permanent cure of carcinoma.

In connection with enlargements or tumors occurring below the inferior maxilla it should be remembered that accessory thyroids may occasionally be found there.

In conclusion I wish to acknowledge my indebtedness to Dr. J. B. Murphy for permitting me to report this case.

UMBILICAL HERNIA PERFORATING THE ABDOMINAL WALL.*

MYRON METZENBAUM, B.S., M.D.
CLEVELAND, OHIO.

Patient.—Woman, an imbecile, aged 56, about 3 feet 2 inches in height; weight, 135 pounds.

History.—For more than twenty years it was known that she had an umbilical hernia. During the past four years the hernia was of such proportions as to indicate that it was formed of a very large portion of the small intestines, with a large part of the omentum. The hernia was never reducible; there always remained a considerable portion of the intestines out of the abdominal cavity. The hernial opening permitted only two coils of the bowel to slip by each other.

The woman aided in performing simple household duties, was able to take care of her person to a very fair degree, but under no condition was it possible to train her to wear an abdominal support.

On the evening of March 19, 1904, the people with whom she lived noticed that her outer skirt was wet and attempted to find the cause. They were resisted with such violence as to compel them to abandon the examination. Early on the following morning I was called, and, on entering the room, was almost overcome by the foul odor, suggesting gangrene.

Examination.—The patient was up and about. I induced her to go to bed, and, on removing her clothing, which was thoroughly saturated, the following unusual condition was observed:

The hernia was much larger than usual, causing the abdomen to protrude upward at least ten inches in height. In the region of the umbilicus the abdominal fat has been worn away, so that in this region the bowels were only covered by the skin. Here there was a circular area $2\frac{1}{2}$ inches in diameter which had become necrotic. At the place where the umbilicus should have been there was a hole fully one inch in diameter, through which the umbilicus and what I thought to be the urachus dangled out on to the abdomen. No attempt was made to reduce the bowel, but a binder was fastened around the abdomen and the patient was removed at once to the Mt. Sinai Hospital for immediate operation.

Up to that time she had not vomited. Her pulse was about 86; temperature normal. She did not seem to be suffering the slightest pain and, judging by her features alone, one would not know that anything was ailing her. She had eaten some breakfast and wanted to engage in her usual duties. The servant was of the opinion that her bowels had moved on the previous day.

From these symptoms I did not consider that there was either strangulation or torsion of the bowel, but that a greater amount of the bowel than usual had been forced through the

abdominal opening, causing a very great pressure on the thin abdominal skin and producing necrosis.

Operation.—Within an hour from the time I first saw the patient she was on the operating table. With the kind services of Dr. C. A. Hamann, the following operation was performed and the following conditions observed:

Nearly all the small intestines, together with the cecum and appendix and a large portion of the omentum, comprised the hernia. Loops of intestines were grown together with masses of the abdominal fat and omentum, and in many places were firmly adherent to the abdominal wall itself. It was for these reasons that the hernia was never reducible.

The opening in the abdominal wall was not over $1\frac{1}{2}$ inches in diameter, so that the cecum, once being forced through, could not slip back into the abdominal cavity. That which I had considered the urachus dangling through the perforation was a Meckel's diverticulum. This was gangrenous and was amputated, as well as part of the omentum. The bowel itself seemed healthy. The fluid which saturated her clothing was peritoneal fluid and serum exudate from the bowel.

After long and tedious work, the various adhesions of the bowel were broken up, but only after unusual effort was it possible to replace the intestines in the abdominal cavity.

Postoperative History.—The abdominal opening was closed. The time required for the operation was one hour and forty minutes. The patient was returned to bed, and soon it became necessary to administer artificial respiration and frequently thereafter, for it seemed as though her respiratory center was interfered with in a very marked degree. She rallied from the operation, her bowels moved at the end of twenty-four hours, she took considerable nourishment, and became about as intelligent as ever. On the third day a double lobar pneumonia developed, and she died on the evening of the fourth as a direct result of the pneumonia. Up to this time the abdomen remained flat, with no unusual tenderness or soreness and no evidence of peritonitis.

GUNSHOT WOUND OF THE BOWELS.

O. S. HUTCHINS, M.D.
CANBY, MINN.

Patient.—June 18, 1905, a girl, 13 years of age, while carelessly handling a 22-caliber rifle, shot herself in the abdomen one and one-half inches to the right and slightly below the middle of a line drawn from the umbilicus to the os pubis. She resided at a farmhouse ten miles in the country. Patient had vomited before I reached her, four hours after the accident, and was in considerable pain with limbs drawn up. There was increased pain on slight pressure over the bowels. Considerable shock was present.

Operation.—Preparation for operation was commenced immediately. Under anesthetic, median incision was made into peritoneum. Considerable free and clotted blood was found, which was scooped out. The first loop of bowel in region of entrance of bullet into peritoneum was grasped, pulled out, and six openings in the small bowel were found in searching nearly its whole length. The openings were closed with Lembert sutures of linen (Pagenstecher). The cecum was then examined and a slit one and one-half inches long near the appendix was found penetrating all the coats of the bowel. A piece of feces which projected from the opening was removed with gauze sponge and this opening was closed as before. Drainage was introduced down to the points of suture in cecum and intestines; also into cul-de-sac of Douglas.

Convalescence.—Bowels moved on third day after repeated small doses of calomel followed by enema. Drainage was gradually removed after the third day. Temperature remained from 99 to 101 for three weeks, when swelling developed above the lower third of Poupart's ligament, and in a few days an abscess discharged through the opening left for drainage. After this there was an uninterrupted recovery. Patient was out of bed at the end of the sixth week with small fistulous opening at lower angle of wound, which had completely closed two weeks later. Bullet was not searched for.

* Read before the Cleveland Academy of Medicine, 1905.