artificial irritation applied to the seat of aura (or signal-symptom) often arrests the attack. For example, in cases where the signal-symptom, or aura, is in the hand or in the foot, the sudden application of a ligature on the wrist or ankle often prevents or aborts the attack. The fact is ancient, but the true theory of its application was first given by Brown-Séquard; a centrifugal irritation inhibits the central discharge. I have been very successful in such cases by having the patient wear a bracelet or anklet of metal or cord, to be suddenly and severely tightened as soon as the patient has the first sign of the attack. Gastric and sub-sternal aura are best met by an irritation to the fauces, a swallow of table-salt, or an inhalation of spray of carbonic acid. The application of these mechanical means, as well as the inhalation of nitrite of amyl (irrespective of the location of the aura), is limited to the few cases in which some little time intervenes between the occurrence of the premonition and loss of consciousness, and the patient has time to call for help, or to open a bottle and smell it.

(To be continued.)

Original Articles.

THREE CASES OF TUMOR OF THE UTERUS.¹

BY JOHN HOMANS, M.D.

A LARGE FIBROID TUMOR OF THE UTERUS WHICH HAD OBSTRUCTED LABOR REMOVED BY ABDOMINAL SECTION.

Mrs. B., thirty years old, was sent to me in December, 1890, by Dr. J. S. Benson, of Chatham, N. B. She had been confined for the first time seven weeks before I saw her. Labor was delayed by a tumor, which filled the vagina more or less, and prevented the descent of the child's head. A consultation was held, and Cæsarian section was contemplated; but the tumor gradually receded, and the child was born without interference.

On examination I found a tumor about the size of a small coconut in the left side of the pelvis, in the iliac and sacral regions. It was slightly movable, and the uterus could be moved independently of it. The uterus was pushed up in the right pubic and inguinal region; it was movable, and had a depth of four inches.

My reasons for operating were: that the tumor had obstructed labor, and if it increased in size, particularly if it contracted adhesions, it might totally prevent delivery by the natural passages in a second pregnancy. Second, it seemed possible to remove the tumor at once; whereas, if it became fixed, it might be impossible to do so. Third, the patient had come a long way, and she and her husband and friends were ready and prepared for the operation.

On December 8th, I opened the abdomen by an incision about four and a half inches in length. The left ovary, of large size, presented itself beneath the incision. Beneath and behind the ovary was felt the tumor. This was seen to be solid and to lie beneath the peritoneum of the left broad ligament. The uterus and ovaries were pulled out and bent forward on the pubes, and an attempt was made to pull out the tumor in its

peritoneal envelope, but this could not be done. Consequently a longitudinal incision was made through the peritoneal envelope of the tumor, and through this opening the fingers were passed and gradually inserted between the peritoneum and the tumor. After awhile the whole tumor was peeled out of its bed. It was then found to be connected with the under side of the body and neck of the uterus by a stalk about one and a half inches thick; this was tied and the tumor cut off. None of the uterus proper was removed. The tumor was a pedunculated fibroid. The large pocket in the broad ligament from which the tumor was removed was sponged out, but was left otherwise unmeddled with. The wound was closed in the usual way without drainage. The tumor weighed two and one-half pounds, and measured seven by four and one-half by three and one-half inches, and was a multiple fibroma united beneath one smooth, even envelope.

It is now two weeks since the operation, the wound is united by the first intention, and recovery seems assured.²

VAGINAL HYSTERECTOMIES FOR CANCER.

Mrs. M., forty-four years old, the mother of two children, the youngest of which is twelve years old, entered St. Margaret's Home, December 16, 1890. In December, 1889, she had felt a bearing-down sensation; in April, 1890, a sudden and transient sharp pain; and in August an inoffensive discharge began, and has continued to the present time. Other than these symptoms she has had no pain nor discomfort. The growth was discovered in August by Dr. Goodspeed of Worcester.

On examination I found an epithelioma, involving the vaginal portion of the os and neck of the uterus, and nearly filling the cavity of the vagina. After two days of antiseptic douching, I removed the uterus by vaginal hysterectomy, making an incision entirely around the growth in the sound mucous membrane, and then separating the uterus from the bladder and rectum by the fingers. The broad ligaments were clamped on each side, and the forceps, four in number, were left hanging out of the vagina. Recovery has been uneventful; temperature normal; but little discharge. The clamps were removed on the fourth day, that is, three days after the operation.³

MALIGNANT ADENOMA OF THE UTERUS, REMOVED BY A COMBINED METHOD OF ABDOMINAL AND VAGINAL SECTION.

Mrs. W., thirty-four years old, married; never pregnant. Bloody discharge from uterus for two years, accompanied at times with pain, rendering her unfit for her ordinary occupations, and much of the time quite offensive. A fat, well nourished, strong woman. Had been treated by curetting in New York and elsewhere, and was referred to me by Dr. Chandler, of Montpelier, Vt.

On examination I found that the uterus was as large as it would have been at the fifth month of pregnancy, and this enlargement was symmetrical and pyramidal. On vaginal examination I found the os thin, the neck obliterated, and within the os a soft mass, feeling much like placental tissue. I passed the uterine scoop freely within the uterus, and tried to pull out the growth with forceps, but I only got bits

¹ Reported at the meeting of the Boston Society for Medical Improvement, December 22, 1890.

² The patient subsequently went home well.
³ The patient made an uninterrupted recovery.

of tissue resembling boiled sago. I could not empty nor get out the growth.

As the uterus was too large to be pulled through the vagina, I decided to do a double operation, and as I did not want to put my hands into the abdomen, after working in the vagina, I asked Dr. Mixer to open the abdomen and remove the tumor, after I had separated its attachments to the bladder and rectum by vaginal hysterectomy. Accordingly I proceeded as if I expected to remove the tumor through the vagina, and when I had separated the uterus from the bladder in front and from the rectum behind, and had clamped the broad ligaments from below, Dr. Mixer opened the abdomen and delivered the tumor, separating what attachments I had been unable to reach, owing to the size of the tumor and the smallness of the vagina. There was but little bleeding.

I think the removal of this tumor in any other way would have been well-nigh impossible.

Dr. Whitney made the following report on the tumor:

"The uterus measured eight centimetres internally, and the walls were four centimetres thick. From the interior hung polypoid projections—the ends of many of these were sloughing. The wall of the uterus could be divided into two layers, an inner, measuring about two centimetres, and filled with numerous small cysts containing a clear fluid. The outer layer, also of equal thickness, represented the muscular wall of the uterus.

"Microscopic examination showed the inner layer to be formed of numerous cysts with smooth walls, separated by a fibrous tissue framework. In this were also to be found tubular glands covered with large cylindrical epithelium.

"As far as the examination has gone, it points to the growth as a malignant lymphangiectatic fibrous adenoma.

"The relations of the cystic to the muscular wall are well seen in the frozen section stained green, and placed in the bottle which accompanies this report."

THE REMAINS OF A BROKEN LEAD-PENCIL (SURROUNDED BY PHOSPHATIC DEPOSITS); AND THE METAL TIP OF THE PENCIL REMOVED FROM THE BLADDER BY PERINEAL SECTION.

BY GEO. H. MONKS, M.D., BOSTON.

LAST spring a patient came under my care in the surgical wards of the Carney Hospital, with a violent cystitis resulting, as he said, from the presence of a lead-pencil in the bladder. He stated that sometime during the preceding October he had pushed a lead-pencil into his urethra for the purpose of "opening the passage for his water to run." He declared that he had suffered with stricture, and that he had introduced the pencil after a vain attempt to urinate. The patient was rather stupid, and he would not or could not give a very satisfactory account of the affair.

The pencil, when introduced, was between three and four inches in length. It was an ordinary lead-pencil, with a piece of rubber attached to one end, while the other was bluntly pointed. The rubber was kept in place by a metal collar.

In some unexplained way the pencil, while in the

* This patient died on the fourth day. There was no autopsy.

urethra, escaped from the patient's grasp, and managed to slip into the bladder:—a circumstance which renders the story of the stricture extremely improbable.

Shortly after this, the patient was obliged to seek surgical assistance on account of the intense pain, violent tenesmus and frequent desire to micturate, which resulted. He said that he had been twice etherized and operated upon, and that he was told after the operations that attempts had been made to remove the pencil through the urethra, that the pencil had been crushed and several fragments removed, including the rubber tip, and that the nickel collar still remained in the bladder, with possibly a few fragments of the pencil itself.¹

Months went by until the patient came to the Carney Hospital. This was in April. He was suffering tortures from pain and tenesmus. The urine was filled with sediment, and its odor was foul. A foreign body,—it seemed like a stone,—was readily detected by the searcher, and it was decided to do perineal section. On April 12th, the patient being under ether, I opened the bladder by the perineal route, the incision being made upon a staff and in the median line.

With my forefinger pushed well into the wound I could feel the foreign body; it was rough on the outside like a stone. Owing to the depth of the perineum I had some difficulty in catching the body with forceps and extracting it.

At last I was successful and it was removed. It was a little over two inches long (see Fig. B), was slightly curved and appeared to consist principally of phosphatic deposit. A considerable piece of macerated wood protruded from one end, while the other end was smooth and was moulded into a blunt point. During further examination of the bladder the metal collar was found and removed. This collar (see Fig. A) was distorted, its shape suggesting that of a cocked-hat; and from one end projected macerated wood. The thread on the collar was quite distinct. The cut represents the two bodies in their actual size.

The bladder was thoroughly washed out, a drainage-tube inserted and a T-bandage applied.

The patient's recovery was rapid and uninterrupted. The bladder was washed out daily with antiseptic so-

¹ I subsequently learned from the surgeon in charge of the case that his intention had been to make an opening into the bladder later, and remove the metal collar, but that the patient would not submit to another operation and had disappeared.