

of arms and hands, which began about two months previously, the first symptoms being more or less loss of appetite, constipation and bad taste in the mouth, especially in the morning. She consulted a physician and was treated for stomach trouble but failed to get any relief and steadily grew worse. "Cramps" in the stomach began to appear and later were accompanied by vomiting. About a week before being seen by me, the patient began to notice that her hands and arms were weak and she could not handle the soldering-iron as well as usual. This weakness progressed until she became unable to dress herself; appetite was practically lost and constipation was marked.

On questioning I found that another girl "dropped" the solder, and it was not until next day that she told me about "playing with the solder," as she expressed it, by which she meant that she kept three or four of the smaller pieces in her mouth and chewed them nearly all the time during working hours. Occasionally she swallowed some of the smaller particles.

Physical Examination.—The patient was a fairly well-nourished and developed girl, although there has been a constant loss of weight, and marked pallor was present. The teeth were in fairly good condition; breath sweet and foul; tongue coated white; gums along gingival border showed marked redness and sponginess, although no blue line was present. With arms extended there was marked "wrist-drop," especially on the right. (The patient used the right hand to hold the soldering-iron.) The left hand could be extended so as to bring it in line with the forearm, but no more, and this with difficulty. No extension was possible in right hand. The thumbs of both hands could be abducted and some supination was possible, showing that there was little involvement of the extensor longus pollicis and the supinator longus. The reflexes were practically normal. The lungs were normal.

The heart showed slight enlargement of left border; no thrills or murmurs; arteries palpable; blood-pressure 130; slight tenderness over the epigastrium; otherwise the abdomen was negative. Urine was acid, specific gravity 1.016, albumin, slight trace; no sugar; occasional hyaline cast. Lead test not made.

Blood: Hemoglobin, 70 per cent.; red cells, 3,100,000; white cells, 7,000. Differential practically normal. Basic degeneration of red cells was rather marked.

Treatment.—The patient was placed in bed and given a soft diet. Free catharsis was obtained with magnesium sulphate, the bowels moving two to three times daily. Copious quantities of fluids were given by mouth. Warm baths were given daily. No other medicines or medicinal measures were used for about a week. During this time the temperature remained subnormal. The pulse averaged between 60 and 70. The paralysis of the forearms remained stationary, with very little muscular atrophy, but the extensors of the toes and peronei of both sides became involved. I could make out no paralysis of the tibialis anticus. The stomach-symptoms had improved markedly, so the patient was placed on potassium iodid, 30 gm. three times a day, after meals. The improvement was marked and a steady gain followed. The legs cleared first, then the arms. Faradism, massage and an elixir of iron, arsenic and strychnin materially aided the convalescence. At the time of making this report the patient is well, has gained 15 pounds in weight and has been working in her old position nearly two months.

A few words of instruction at the beginning of her employment might have saved several months of poor health and a period of confinement.

Toleration for Nicotin.—In a paper read before the Philo-sophical Society of Cambridge, England (abstracted in *Nature*, March 16), after noting that one form of toleration for chemical substances is associated with their oxidation and destruction, W. E. Dixon showed that normal animal tissues have the power to destroy a small amount of nicotin, but this is considerably increased by an acquired tolerance. There is evidence, he said, to show that this is not due to chemical combination with the tissues, but that, on the contrary, it is caused by ferment action

A NEW METHOD OF DIAGNOSIS OF ACUTE INTESTINAL OBSTRUCTION BY THE STOMACH-TUBE

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When the physician is called to a patient with a history of vomiting, the vomited material has usually been thrown away, its character being unnoted. The patient cannot always vomit in the physician's presence, and if she does it may not be characteristic. These facts were recently impressed on me when called by Dr. Charles F. Hunt to see a patient. The case illustrates forcibly the value of the stomach-tube in making a diagnosis of acute intestinal obstruction.

History.—A married woman, aged 45, had been in perfect health, except that twelve years previously she had an abdominal operation for some pelvic inflammation, for which it was necessary to use drainage-tubes for several weeks, thereby causing many adhesions, which, no doubt were the cause of the present trouble. She had been in Philadelphia on a visit, had eaten a good German dinner, which she fully enjoyed, and returned Sunday evening about 9 o'clock. She felt so nauseated and distended with gas that she took two enemas with good results. But the pain in the abdomen increased and she began to vomit. Her family physician was called at 11 o'clock and gave treatment for acute indigestion. The patient was no better on Monday, was worse on Tuesday, and I saw her at 11 o'clock Wednesday morning. She was in good condition, temperature 99 F., respiration 30, pulse 100. The diagnosis was still acute indigestion. She complained of considerable pain in the abdomen, was so full of gas, as she expressed it, that she could hardly breathe. She had been vomiting at times, but none of the vomitus was saved. There had been no fecal vomiting, so far as the physician and nurse had noticed. The stomach was thought to be empty.

Examination.—I obtained a splashing sound down to the pubes. Diagnosis was acute dilatation of the stomach. I passed a stomach-tube, and to my surprise expressed over two quarts of a dark brown fluid with a fecal odor. On examination it was found to be fecal. A diagnosis was then given of acute intestinal obstruction and a surgeon advised to be called in immediately, which was done.

Operation.—Dr. Henry M. Silver saw the patient at 1 o'clock with Dr. Hunt and myself. He concurred in the diagnosis, and the patient was operated on that evening. It was found at operation that the ileum was being strangulated by a small band of adhesions about the size and shape of a mouse's tail. The intestines were very much distended, and it was difficult to relieve the constriction, owing to the many adhesions, which were due to the previous operation twelve years before.

The patient was back home again in two weeks, and feels perfectly well to-day.

I would therefore suggest, as an aid to diagnosis in these acute abdominal disorders, that the stomach-tube be passed from hour to hour, and the contents carefully examined. If they are of a dark brown color with a fecal odor, ruling out peritonitis and other acute conditions mentioned above, then a definite diagnosis of acute intestinal obstruction can be made, and immediate operation should be advised. By this means the terrible mortality would be lessened, many patients would be spared, and they would rise up and call him blessed—the physician with his stomach-tube.

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