vitality. The patient was put to bed, and two hours afterward her pulse became very rapid, she grew cold, and died six hours after the operation.

It was very evident that the abraded surfaces left on the intestine by the separation of the adhesions to the gangrenous fibroid had become adherent to each other and thus formed the adventitious opening through which the cecum had slipped.

Is it assuming too much if one concludes that if the fibroid had been discovered and removed before it became twisted on its pedicle the patient might be alive to-day?

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ATROPIN POISONING IN A CASE OF INTERSTITIAL KERATITIS

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In the literature to which I have access it is stated that poisonous symptoms rarely occur with the instillation of 1 per cent. solution of atropin sulphate.

Patient.—A boy, aged 8, blond, fairly well developed and nourished, had been under treatment for interstitial keratitis since November, 1908. This was complicated with a posterior synechia in the left eye. Treatment consisted of instillations of one drop of a 1 per cent. solution of atropin sulphate five times daily with the administration of biniodid of mercury and potassium iodid internally. Six weeks ago the instillations were reduced to one drop three times daily. The general health and sight were improving.

Poisoning.—On Feb. 25, 1909, I was called at noon and told that the boy was acting very queerly. It was also stated that there was muscular incoordination of both lower extremities and that articulation was difficult and incoherent. I saw him within an hour after these symptoms began. Rectal temperature was 98.2 F., pulse 104 and respirations 22. The pupils were widely dilated from the instillations of atropin, the face was flushed, the lips dry, the tongue moist, the throat dry, but normal in color, the mucous membrane of the nose dry, no nausea or vomiting. There was considerable mental excitement with illusions, delusions and hallucinations. The patient seemed to become momentarily rational at times. During these rational moments he would protrude his tongue when asked and also stated that nothing pained him. Reflexes were exaggerated. The patient refused to take anything to drink. A tepid sponge bath was ordered and an enema given. The patient passed a small unformed stool and about a half pint of amber-colored urine which contained no albumin. The diagnosis of atropin poisoning was made and all medication discontinued. Six hours later the only change noticed was decidedly clearer articulation. The patient had passed a large quantity of urine during this time. Chloral and bromid were administered and about 10 p. m. the patient passed off into a normal sleep, not awakening until 7 a. m. the next morning, perfectly rational, with a good appetite and anxious to be up and at play.

DYSPNEA AND URTICARIA FOLLOWING INJECTION OF ANTITOXIN IN DIPHTHERIA

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Patient.—On Sept. 20, 1908, a young man of 28 presented himself complaining of a sore throat and giving the history of exposure to diphtheria three days previously. An examination of the throat showed a typical membrane on the right tonsil, a culture from which gave the Klebs-Loeffler bacillus. Externally the throat was tender to pressure and the cervical lymph

glands were enlarged. The patient was nervous; temperature 100 F. and pulse 95. The examination was otherwise negative.

Reaction from Antitoxin.—At 11:30 a. m. 2000 units of antitoxin were injected in the back with no especial discomfort to the patient. In about ten minutes the patient became restless, the face cyanotic and the respirations difficult. Gradually the respiratory distress became marked, the patient lying in a slightly raised position, with head extended, face cyanotic, expression agonized, nostrils dilated, the body limp and covered with cold sweat—the picture of suffocation. The pulse was rapid and weak, 120 a minute; the respirations were noisy, 30 to the minute. A hypodermic injection of morphin, gr. 1/4, and atropin, gr. 1/150, was administered. A cold towel was applied to the head, the extremities were rubbed and the patient fanned. After twenty minutes the urgent dyspnea gradually left and a fine general urticarial rash was noticed. This rash was white and raised, itched only slightly and persisted for four hours. When the patient could be moved he was taken home and put to bed.

Treatment for Reaction.—As it was feared that another injection might be necessary, the dry antitoxin was telegraphed for, and calcium lactate given by mouth every two hours in 5-grain doses. A gargle of hydrogen peroxid was ordered and strychnin, gr. 1/40, was given every four hours. A few drops of antitoxin were dropped into the nostrils every hour, in the hope that some might be absorbed and retained. At 11 p. m. the patient experienced a slight attack of dyspnea, which was readily controlled by morphin and atropin by mouth. In the morning the membrane had increased, covering parts of both tonsils, and the patient's general condition was not so good. After waiting several hours, the dry antitoxin not arriving and the patient's condition growing worse, we thought best to renew the injection in the hope that the calcium lactate would control the unfavorable action of the antitoxin. A hypodermic injection of morphin, gr. 1/8, and atropin, gr. 1/150, was administered and a few minutes later, at 3 p. m., the injection of antitoxin was begun. In the next twenty minutes 4000 units of antitoxin was given; then the patient again became restless and cyanotic, the difficulty of breathing reappearing as on the previous day, though with hardly the same severity. A second hypodermic injection of morphin, gr. 1/8, with strychnin, gr. 1/40, was administered. The urgent dyspnea lasted about fifteen minutes, and as the patient's breathing became easier the urticaria returned. This time also it was general and white but the wheals were larger, persisting for twenty-four hours and the itching was marked. The next morning the throat was nearly clear. The recovery was complete and uneventful. At no time in the disease did the temperature go above 101.5 F. and the pulse ranged between 90 and 110 except in the dyspneic attacks, when it was about 120.

History.—Later a history was obtained of attacks resembling hay fever when the patient was around horses, especially when they were sweating. These attacks began by itching of the eyelids, and a feeling of rawness in the nose, and were followed by a coryza, which persisted for about two hours. The attacks were so oppressive that the patient always avoided a livery stable. During previous years he had had several asthmatic attacks not at all associated with hay fever. Since these injections of antitoxin the attacks of asthma have disappeared. The patient had received hypodermic injections of morphin previously, so that was not the cause of the urticaria. The association of dyspnea from the use of horse serum and the attacks of something resembling hay fever from the odor of horses is at least an interesting coincidence, if not showing a causal relationship.

One might be censured for administering the second dose of antitoxin when the first was so fraught with danger; but at that time it was regarded as the less of the two dangers. So far as an opinion can be formed from one case, it seems that the calcium lactate lessened the bad effects of the serum, which were lighter and of less duration after its administration, although twice as much of the serum was given. Sixty grams were administered between attacks.

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