FOUR CASES OF ACTINOMYCOSIS.[1]

BY JOHN C. MUNRO, M.D., BOSTON.

Case I. Hyman G., clothing dealer, forty-five years old, was seen in consultation with Dr. A. L. Flanders and Dr. Henry Jackson, to whom I am indebted for notes on the history of the case. In March, 1899, the patient had had a cough with expectoration for several months, and for two weeks an irregular fever, pain in the back, and increasing shortness of breath. Coarse râles were heard over both backs and in the left lower back, about the region of the eighth to tenth ribs, an area of dulness was found with diminished respiratory murmur and absence of fremitus. A diagnosis of bronchitis with limited encapsulated pleurisy was made. No tubercle bacilli were found in the sputum. A week later the patient was reported to have been cyanotic for a short time; the expectoration continued, but no change in the physical signs was found. The fever continued for a fortnight longer, up to the first week in April, when bulging of the chest wall in the area of the dulness appeared, with marked pain. The chest was aspirated several times, but only blood was obtained. Examination at my first visit on April 5th showed a smooth, hard, slightly tender tumor below the angle of the scapula, flat on percussion and solid in feel. A diagnosis of sarcoma or local empyema was made.

Under ether on the following day the tumor was incised, and beneath the outer layer of muscles a small abscess containing thick pus was opened. The upper edge of the ninth rib was found denuded, and leading thence was a small sinus from an encysted empyema about an inch and a half in diameter. A section of the rib was removed, the cavity, whose walls were rough, thick and sarcomatous in feel, with much granulation tissue, was curetted out and packed with gauze. The operation caused no shock, but the general condition did not improve, the cough continued, the temperature often ranged as high as 105° or 106°, and in the course of a few weeks the patient died. The actinomyces were found in both the curettings and the sputum.

Case II. Allen G., a carpenter living in Prince Edward's Island, was referred to me by Dr. Muttart, of East Boston, in February, 1900. There was no clue to the original source of infection. In July, 1899, he fell, striking his right cheek against a board, but thought nothing of it at the time. In August he noticed that he could not open his jaw, and a month later a swelling appeared either in the parotid region or at the angle of the jaw. This swelling grew slowly until December, when it increased rapidly. Examination showed a hard, projecting tumor of the right side of the face, softened in the centre, where the skin was reddened. No connection with the bone of either jaw could be found. The induration extended from the ear to the lower edge of the ramus, and nearly to the angle of the mouth, and upwards nearly to the lower edge of the orbit. No enlarged glands were to be felt. Diagnosis lay between a malignant tumor of the parotid, for which he was referred to me, or actinomycosis. The soft area was opened and examination of the pus revealed the actinomyces. Under ether, Dr. Bottomley curetted and dissected out all suspicious tissue, the cavity being treated with tincture of iodine, peroxide and iodoform packing. Two weeks later there was a suspicious local recurrence, and again under ether I curetted thoroughly and dissected off some of the masseter, and probably part of the parotid gland. This wound healed slowly, and by the end of March there was a small granulating area from which saliva escaped irregularly and in decreasing amounts, and the patient returned home to his physician.[2]

Case III. Robert W., a carpenter thirty-five years old, entered Dr. Bolles's service at the City Hospital on February 19, 1900, with a fracture of the lower jaw at the symphysis and in the molar region on the left side. Two years and eight months ago his jaw was broken in a fight, at the symphysis and on the left side; it healed in seven weeks under treatment at the Massachusetts General Hospital. Five months ago he worked about horses with the "scruffles" (circular ulcers of the legs and nasal discharge). Ten days ago, while drunk, he fell 10 feet, striking on the left side of his face and jaw.

On the following day he was referred from the Massachusetts General Hospital to the Dental School, where a splint was fitted which he did not wear. The day before entrance to the City Hospital he began to have marked pain and swelling of the face, and at entrance there was a swelling from the ear to the symphysis, and 4 inches down the neck, red, tender and indurated. Two days after admission the abscess was opened under ether inside the mouth, and a few suspicious granules were seen. Six days later a diagnosis of actinomycosis having been returned from the pathologist, and the abscess not draining well, he was given ether again and the abscess thoroughly curetted from the outside. No characteristic granules were seen at this operation, though the fungus was found in the scrapings. Ten days later he was discharged to the Out-Patient Department with a sinus, considerable discharge, moderate induration, diminishing in area, and ability to open the jaw half an inch. Up to present time there has been no recurrence.

Case IV. Emma L., a healthy college girl from the middle of the State, came to Drs. E. C. Briggs and Hardy for an alveolar abscess of the left lower jaw. Two weeks before she came to Boston, a local dentist had extracted a carious molar tooth for toothache, but without relief, the swelling increasing, so that when I saw her with Dr. Briggs in February last there was a soft, fluctuating abscess along the lower edge of the jaw with moderate induration of the surrounding tissues. In order to avoid a scar if possible, under ether I opened and curetted the abscess through the mouth, evacuating an ounce or two of pus that was not at all suspicious of anything beyond a simple alveolar abscess. Dr. Hardy carefully drained and cleaned out the cavity daily, but the bluish induration of the tissues did not soften down satisfactorily. Tuberculosis and actinomycosis were considered, but the former seemed much more probable from the family history and the failure to obtain any clue to the inoculation of the ray fungus. On March 8th, under cocaine, I opened the pocket from the outside and curetted out considerable granulation tissue. In the scrapings one granule was seen that looked suspicious, and that led us to have a pathologi-

[1] Read before the Surgical Section of the Suffolk District Medical Society, April 4, 1900.

[2] After complete immunity until August following, the disease reappeared in the neck.

cal examination by Dr. Mallory, who reported the actinomyces. The patient then entered the City Hospital, and under ether all suspected tissue was curetted and dissected and preserved *in toto* for examination, one colony being found. Ten days later a small area at one edge of the wound that looked suspicious was curetted out, and three colonies were found. Five days later another similar looking spot was thoroughly cleaned out, but no colonies were found. The patient is still under treatment, but without any evidence of further relapse.

The pathological examination was made in each case by Dr. Mallory.

All the face cases showed invasion of the soft tissues only, the bone being free. In none of them could any definite trace of the original infection be found.

All the cases were given iodide of potash, and the wounds treated with peroxide, tincture of iodine in full strength or solution, and packed in iodoform gauze until all evidence of presence of the fungus had disappeared.

TENDON SUTURE.[1]

BY EDWARD S. HATCH, M.D., BRIGHTON, MASS.

D. J. A. entered the Carney Hospital, as an accident case, on August 28, 1899. This afternoon he plunged his right hand through a window and cut the anterior part of his wrist on the ulnar side. When he entered the hospital he had a cord tied around his arm which was not arresting the hemorrhage.

I applied a rubber tourniquet, and after having the patient etherized I cleaned up the cut and parts surrounding it with a solution of chlorinated soda, then soap and water, and finally with corrosive. The cut was about two inches long. This cut I enlarged, both vertically and horizontally, and found the following structures divided: The tendons of the palmaris longus, flexor carpi ulnaris, and flexor sublimis digitorum. The ulnar artery and the median nerve were also found cut. The ulnar nerve was cut about halfway through its structure. The tendons of the flexor profunda digitorum were slightly nicked. The tendons and nerves were united with fine silk sutures. The ulnar artery was tied, both the proximal and distal ends. No attempt was made to unite the tendon sheaths. The skin wound was united with interrupted silkworm-gut sutures. Sterile gauze was put over the wound, and the arm was put up in anterior and posterior splints, with fingers semiflexed. The operation took two hours and fifteen minutes, and the patient was put to bed in good condition.

August 29th. Patient feeling well today, has little pain. Says he begins to have feeling in fingers.

September 2d. Dressing and splints removed, wound healed by first intention. Sense of feeling not so good over the distribution of median nerve.

September 8th. Dressing removed. Sensation slowly returning. Fingers can be moved a little. Stitches removed.

September 12th. Patient is able to move all fingers slightly. Sensations better than on previous days. Hand put up in anterior posterior splints. Anterior splint shortened.

[1] Read before the Surgical Section of the Suffolk District Medical Society, April 4, 1900.

September 16th. Movements of fingers improved. Hand dressed as before. Patient left the hospital. Is to be treated as an out patient.

September 25th. Movements of fingers improving. Hand put up in more extended position.

October 2d. Sensations and motions gaining. Hand put up still more extended.

October 18th. Motions improved. Anterior splint left off today.

October 28th. Splints all removed. Not any pain. Motions better. Massage started today to be continued three times a week.

November 13th. Fingers gaining in extension all the time. Only a very light dressing put on.

February 15, 1900. Patient has had massage three times a week up to this time. Extremely good flexion and extension; good sensations. Massage discontinued.

April 4th. At the present time the patient has normal flexion and extension, with normal sensation over the distribution of the ulna and nearly normal sensation over the distribution of the median nerve. It is interesting to note in this connection that the nails of the thumb, first and second fingers, died and then grew again, so that now on these fingers he has half of the dead nail, which is being thrown off, and also half of the new nail. He can separate the fingers and draw them together again with perfect ease.

A METHOD OF TEACHING PRACTICAL MEDICINE.

BY THOMAS F. HARRINGTON, M.D., LOWELL, MASS.

SINCE the publication of an article presented to the American Medical Convention at Columbus, Ohio, in June, 1899,[1] entitled the "Philosophy of Sickness," several articles have appeared in the medical journals, either elaborating my ideas or suggesting similar methods of reaching the same end, therefore I thought it best to explain in detail what I had merely given in outline, in order that the profession could judge rightly of the value or uselessness of my method of giving medical instruction to classes at the medical schools. It is not my intention to criticise existing methods as practised in the best medical schools today, nor to attempt to offer a different plan for doing the work, but simply to give the views of one who has felt the shortcomings of the modern schools, and who has given considerable thought to the correction of the same.

I believe the courses offered in the best schools in this country are capable of giving the greatest amount of good to the largest number. It is not the addition of new courses, but rather the appreciation of the value and possibilities of the present courses that I would like to emphasize. Much of the criticism of today on the method of teaching medicine is due to a misunderstanding, both on the part of the teacher as to the needs of the student, and on the part of the student as to his duty in the work. It will be my object first to try to clear, to a degree at least, some of the causes leading to this state. That there is a *science* of medicine as well as an *art* seems to have been overlooked by those who are protesting against existing methods, and it is to the neglect of this funda-

[1] Boston Medical and Surgical Journal, August 17, 1899.