CASE OF HYPERTROPHIC PULMONARY OSTEO-ARTHROPATHY.

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THE following is the record of a good example of this rare and interesting disease:

History.

The patient was a man, aged 26, a pawnbroker, who was admitted into the Ventnor Consumption Hospital on July 4th, 1902. He has always had a cough and his voice had always been husky; he has never had rheumatism, gonorrhoea, or syphilis. His mother, two sisters, and three brothers are alive and well and no brothers or sisters dead; his father is rheumatic. There is no history of pulmonary tuberculosis or any other chest complaint in the family.

Two years ago he had an attack of dry pleurisy on the left side. He was laid up for a month, but soon after returned to work feeling quite well. Six months later his appetite fell off, he lost strength, his cough became worse, and the amount of expectoration increased. During the attack of pleurisy he coughed up a few streaks of blood, and has done so since at intervals of about a month, but has never coughed up any large quantity of blood. He used to be troubled with sweating but this has lately diminished. He complains of shortness of breath and has lost a stone in weight. According to the patient's account, the tips of his fingers have always been large as have also his hands. Two years ago his wrists, ankles, and knees commenced to enlarge, but there has never been any pain in them.

State on Examination.

The patient is pale, thin, and the skin is rather yellow. The appetite is good, the tongue slightly furred, but there are no digestive troubles, and the bowels act daily. The expectoration averages 4 oz. in the twenty-four hours, is frothy, muco-purulent and slightly fetid. The urine is acid; its specific gravity is 1020, and it contains neither albumen nor sugar. The pulse rate is 96; it is regular and of good volume and tension. There is an enlarged lymphatic gland under the lower jaw on each side and in each axilla, and there are a few slightly enlarged glands in each groin. The apex beat of the heart is in its normal position; the area of superficial cardiac dullness is slightly diminished in extent from above downwards, its upper border commencing at the fifth left costal cartilage. The heart sounds appear normal, the chest is poorly covered, and expansion at the upper part of the right side in front is feeble, and the vocal resonance is increased over this part. The percussion note is impaired at the right apex in front down to the second rib and in the right supraspinous fossa. Expiration is prolonged all over the chest, and there are a few sibilant rhonchi over the right side in front. Cavernous breathing and whispering pectoriloquy are heard in the first and second interspaces on the right side close to the sternum. Vocal resonance is increased at the right apex front and back, and scattered crepitations are heard over the whole of the right lung front and back, and in the upper part of the right axilla. On laryngoscopic examination no definite signs of disease could be detected in the larynx. Examination of the blood gave the following result: Red cells, 4,800,000 per c.mm.; white cells, 26,585 per c.mm. Relative proportion of white cells: polymorphonuclear, 74.4 per cent; lymphocytes, 16.9 per cent; large mononuclear, 7.5 per cent; eosinophiles, 1.15 per cent. The hands are very large, the ends of the fingers markedly clubbed, and the fingers and thumbs thickened throughout their length. (Fig. 1.) The nails

Fig. 1.

are broad, their roots can be easily felt, but they are not longitudinally striated, nor do they appear to be abnormally brittle.

Measurement round the bases of the fingers on a level with the metacarpophalangeal joints gave as a result $3\frac{1}{2}$ in. in each hand. There is marked fullness over both wrists, back and front, and the lower ends of the radius and ulna in each forearm appear to be thickened. Movements at both wrist-joints are limited, but the finger-joints are quite supple and there is no oedema over or around the affected parts. Each wrist measured $7\frac{1}{2}$ in. round just above the styloid process of the radius. Nothing abnormal can be detected about the elbow joints beyond slight pain over the external condyle of the left humerus when the arm is bent at the elbow. The shoulder-joints appear normal, but the patient complains of aching pains in them when the arms are stretched out on a level with the shoulders. There is marked fullness around both ankles and over the dorsum of the feet and the lower ends of the tibia and fibula on each side appear to be thickened; there is no limitation of movement at the ankle-joints and no oedema of the skin. Measurement around the heel and over the front of the ankle-joint in each leg gave as a result $13\frac{1}{2}$ in. The ends of both big toes are clubbed otherwise the toes appear

Fig. 2.

normal. Both knees are much swollen, but the edges of the bones forming the joint are not lipped, nor is there excess of fluid in either joint. The patellae appear very large and each measures $3\frac{1}{2}$ in. across transversely. Flexion and extension at the knee-joints to their full extent causes pain. The hips are apparently unaffected, but the patient complains of slight pain on the inner side of each thigh when the leg is rotated. There is no curvature of the spine and the shape and size of the head and lower jaw appear normal.

Diagnosis.

Although tubercle bacilli were never found in the sputum, the patient was considered to be suffering from tuberculosis of the lungs, with consolidation and possibly a vomica in the right upper lobe.

Progress.

During his stay of ten weeks in the hospital he improved considerably in his general health gaining 5 lb. in weight, and only on two occasions did his evening temperature rise above 99° F. His daily amount of expectoration diminished to 2 oz., but remained the same in character occasionally being tinged with blood. Before leaving the hospital patient not said his hands and wrists were smaller, but measurement did reveal any appreciable diminution in size. A few crepitations appeared at the upper part of the left axilla shortly before he left the hospital, otherwise the signs in the chest were the same as on admission. From an examination of the x-ray photograph of the right hand and forearm it appears that the enlargement of the fingers, hands and wrist is due both to increase in size of the bones and hypertrophy of the soft tissues.

This case, I think, belongs to that group of interesting cases described by Marie as "l'osteo-arthropathie hypertrophique pneumique."

From the English and American literature of the last ten years I have only been able to collect 25 cases of this peculiar complication of chest disease, and of these the larger number has followed either phthisis or pleural effusion (simple or

Fig. 3.

Fig. 4.

purulent), a few were the result of bronchiectasis and one complicated a case of tubercle and cancer of the lung.²

Thorburn,³ who has reported 3 cases, thinks that the affection is really a benign tuberculosis of the bones and joints. Godlee,⁴ however, disagrees with this conclusion, since the changes in the bones and joints may occur in non-tuberculous patients.

One may conclude by saying that so far no satisfactory explanation has been given of the changes occurring in the bones and joints in this complication of thoracic disease.

I am indebted to Dr. Ross for allowing me to publish this case.

REFERENCES.

¹ *Revue de Médecine*, vol. x, 1890, page 1. ² J. O'Carroll, M.D., *Transactions of Royal Academy of Medicine in Ireland*, vol. xvi, 1898. ³ *BRITISH MEDICAL JOURNAL*, June 3rd, 1893, vol. i, page 1155. ⁴ *Clinical Lectures*, *BRITISH MEDICAL JOURNAL*, July 11th, 1896, vol. ii, page 57.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

THE RAPID EFFUSION OF A LARGE AMOUNT OF FLUID INTO THE PLEURAL CAVITY.

THE publication of Dr. W. Westwood Fyfe's interesting case on p. 1204 of the *BRITISH MEDICAL JOURNAL* for May 23rd, induces me to send you the following figures concerning a woman, aged 22, who was admitted under my care into Guy's Hospital in 1892. She suffered from tubal nephritis, together with mitral constriction and incompetence. On December 16th, 1892, her right pleural cavity was aspirated, and, as far as I could ascertain, I removed all the fluid, which was 36 fl. oz. Thirty hours after, on December 17th, 106 fl. oz. were aspirated; 78 hours after this, on December 20th, 120 fl. oz. were aspirated; 30 hours after December 20th, on December 22nd, 50 fl. oz. were aspirated; and on February 12th, 1893, 30 fl. oz. were aspirated, making a total of 342 fl. oz. of clear serum removed from the right chest. It appears, therefore, that after the first aspiration, the fluid collected at the rate of $3\frac{1}{2}$ fl. oz. an hour, and after the second and third at the rate of about $1\frac{1}{2}$ fl. oz. an hour. In a paper I published in the *Lancet* for March 25th, 1893, p. 649, the suggestion is thrown out that in cases of very rapid pleural effusion the azygos veins are thrombosed.

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TWO CASES OF ECLAMPSIA SUCCESSFULLY TREATED BY MORPHINE.

THE first case was that of a young country woman, about five months pregnant, with a history of two previous miscarriages. I was summoned to this patient because she had suddenly fallen into a fit. I found her in a dazed condition, being unable to comprehend any question put to her. I gathered that about breakfast time she had lost her sight for a time, and that she had "fainted," falling on the grate, rather severely burning her face; and that during the day she had complained of great headache, and about 7 p.m. had developed the fit referred to, in which she was much convulsed, had gone black in the face, and had bitten her tongue. It being so early in pregnancy, the os being undilated, and not more than two fits having occurred, I decided that the morphine treatment should have a trial, and accordingly gave a hypodermic injection of morphine sulphate gr. $\frac{1}{2}$, at the same time placing croton oil (mij) upon the tongue, and wrapping her in a big blanket wrung out of very hot water. The next day I found the patient quite sensible, having had no more fits, and having had free action of the bowels and skin. She was given no further morphine, but was put on strict milk diet, diaphoretics, diuretics, and bromides. She had now developed the typical puffed, oedematous, white face of acute Bright's disease. Water was passed in the smallest quantity on the second day, but became more free on the third, when it contained much albumen. In the course of a few days the evidences of renal disturbance entirely cleared up. The woman eventually miscarried some three weeks later, the fetus having apparently been dead for some time. She progressed satisfactorily.

The second case was that of a multipara, 8 months pregnant, having had a family of 13, in addition to two miscarriages. She had had six fits during the early hours of