A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, PLYMOUTH.

FRACTURE OF STERNUM, LEFT CLAVICLE, AND SEVERAL RIBS, DISLOCATION OF SCAPULA; RECOVERY.

(Under the care of Mr. W. SQUARE.)

THE occurrence of multiple fractures such as those described in this case is very rare, even as a consequence of severe and rapidly fatal injury. Generally a hopeless prognosis would be given, for fracture of the upper ribs is dangerous on account of the important structures adjacent; and fracture also of the clavicle and of the sternum in the same patient implies an amount of shock from which few could rally. For the following notes we are indebted to Mr. W. Gifford Nash, house surgeon.

W. C—, aged forty-five, a navvy, was admitted on Jan. 7th, 1891, with a history that whilst at work about an hour previously a ton of frozen earth fell on him, crushing his chest. Half an hour was occupied in extricating him. When admitted he was very collapsed, the pulse only just being perceptible. There was great difficulty of breathing. The upper half of the left side of the chest was much damaged, it felt like a bag of bones, and flapped in and out with respiration. There was a slight amount of surgical emphysema in the left clavicular region, and a large effusion of blood. The sternum was broken transversely about the junction of the manubrium and gladiolus. The left clavicle was broken one inch from its sternal end, and at its outer end the ligaments were torn, so that the scapula was dislocated below it. The four upper left ribs were broken near their junction with the sternum, and also near the anterior axillary border. The chest was at once firmly strapped horizontally and obliquely over each shoulder, so as to fix the clavicles. The left arm was bandaged to the side. For the first few days there were great dyspnoea and collection of mucus in the air tubes. Carbonate of ammonia and twelve ounces of brandy daily were given, and morphia occasionally to relieve pain and produce sleep. The effect of the morphia was very beneficial, as during the day there was great dyspnoea, but, as soon as morphia produced sleep, the breathing became quite tranquil. A catheter was required for a fortnight. At the end of three weeks the strapping was changed, and at the end of five weeks omitted. There was then firm union of all the fractures, the acromio-clavicular joint was in perfect position, and the movements of the left arm perfect. The patient is now quite well.

Remarks.—This case at first seemed quite hopeless, and a very bad prognosis was given. The firm strapping gave great relief and kept the very movable fragments at rest. The beneficial effect of the morphia in relieving the dyspnoea was a marked feature of the case. The perfect position of the acromio-clavicular joint after dislocation is also a satisfactory result.

CHALMERS HOSPITAL, BANFF, N.B.

REPORT OF CASES UNDER DR. KOCH'S TREATMENT.

(Under the care of Drs. FERGUSON and DINGWALL.)

THE following series of seven cases in which tubercular disease was present gives the result of treatment by the method of Dr. Koch, and forms an interesting addition to the evidence as to the value of the treatment. In each the effect of the injections was marked, and in some the ultimate result was most satisfactory. We hope to be able to report later that the improvement was permanent.

CASE 1. *Hip joint disease.*—W. S—, aged seventeen, a boatbuilder, was admitted on April 2nd, 1890. The disease had lasted since childhood. On admission there were nume-

rous sinuses over the region of the left hip-joint, from which there was a profuse discharge. The femur was dislocated upon the dorsum ilii, and ankylosed. The patient was treated with complete rest and generous diet, but little improvement resulted. On May 1st the sinuses were thoroughly laid open, and scraped with Volkmann's spoon. They did well for a time, but gradually returned to the old condition. They were again operated on on Oct. 3rd, and for a time promised to do well, but when the first injection was made (Dec. 28th) the discharge was profuse, and there were as many as eight sinuses. Between these lay raw patches with the characteristic tint of tubercular wounds. Temperature before first injection had been normal for several weeks. The patient was in fairly good health. He suffered a considerable amount of pain when the affected limb was moved.

Treatment.—From Dec. 28th to Feb. 20th he received thirty-one injections. The first was 0.0025 gramme, and the last 0.1 gramme, the latter injection being repeated several times. The reactions have been very variable, the highest being after the second injection (0.0045), when the temperature rose to 101°, and the pulse to 108. There have been reactions with all the injections except the fourth, sixth, tenth, and the last four. There have been few general symptoms. After the first injection the patient had slight frontal headache, and nine hours after he was sick and vomited. He has felt somewhat dull and heavy after several of the injections, but suffered no further inconvenience. Locally there was a marked reaction after the earlier injections. For about two inches around the wound the skin took on an erysipelatous look, and the discharge from the sinuses became more profuse. Here and there at the edges of the wounds appeared gelatinous-looking nodules, which gradually broke down and disappeared, leaving a healthy, raw surface. He felt the parts hot and burning during the reaction, but afterwards the parts felt easier than before. After the later injections there has been very little local reaction, and the discharge has now almost ceased. The wounds are now reduced to about one-fourth their original extent, and there is but one sinus an inch in depth. The wounds have not made the same progress lately as they did at first, but they continue to improve. Patient expresses himself as feeling much better and stronger. He has now no pain at the hip, and can lie on the affected side and move the leg, which he could not do before. He has gained flesh considerably, and has lost the careworn expression he had before the treatment was begun.

CASE 2.—M. C—, female teacher, aged thirty-two, single. Admitted to hospital on Dec. 27th, complaining of cough, expectoration, general debility, and slight night sweats. Disease of six years' duration. Sputum muco-purulent, and containing numerous tubercle bacilli. Sputum three ounces during twenty-four hours. Cough at times severe. No hæmoptysis. Her sister died of phthisis. On the anterior aspect of left infra-clavicular region there was much flattening, diminished expansion, little or no vesicular murmur to be heard for the numerous moist sounds present during the whole respiratory act, the crepitations being largest between the first and second ribs. Same condition, but not so pronounced, in supra-spinous region. Breath sounds fairly normal in lower parts of lung. Breathing at right apex slightly harsh, but no moist sounds. Temperature for two days before treatment normal.

Treatment.—From Dec. 30th to Feb. 20th she has had thirty-five injections. Marked reactions have followed the third, sixth, seventh, and ninth, the temperature rising to 101.2° after the sixth, and the pulse to 104, but latterly the symptoms were less marked. There have been but slight reactions following the tenth and remaining injections. After the first injection patient felt very dull and heavy, and inclined to sleep. She had also headache. There were a few streaks of blood in the sputum on the second day after the first injection, but none have appeared since. The first injection was 0.001 gramme, and the last 0.1 gramme. Although after several of the injections the general reaction was slight, still, as far as one could judge by auscultation, a local reaction had taken place. This was evinced by diminished respiratory sounds and increase of the moist râles, although not to nearly such an extent as previously to treatment. On the day following the injection the sounds were again dry and harsh. The natural respiratory murmur extends higher up than it did before treatment. She can now lie with ease on the affected side, which she could not do for several years before treatment.

was commenced. The sputum is now reduced to three drachms, and bacilli can only be detected with difficulty. Very few moist sounds of any kind are to be heard, but there is loud, harsh, bronchial breathing, along with a creaking noise which seems to be superficial. Dulness less marked, not so extensive. Patient thinks herself much stronger than on admission, and is now gaining flesh. She is up and moving about the hospital, but not out, owing to coldness of weather.

CASE 3. *Lupus of face*.—W. R.—, female, aged thirty-nine, was admitted to hospital on Dec. 29th. The disease has lasted for twenty years. Began as a small patch on right cheek, and has gradually spread over the whole of both cheeks, nose, lips, and left side of chin. Parts of the cartilages of the nose are eaten away; they have been scraped several times with little or no permanent benefit. General health fairly good. No chest symptoms.

Treatment.—The patient has received eleven injections: beginning with 0·003 gramme, and the last injection 0·07 gramme. The first reaction was well marked; the temperature of the fifth reached 101·4°. Four hours after the injection the patient complained of oppression in the chest, with slight cough, and a little later she was sick and vomited. The local reaction was very marked, presenting the usual well-known appearances. On each cheek is a large, thick, yellow scab; that on the left cheek is of considerable thickness, and is beginning to separate. From below the scabs there is a considerable mucopurulent discharge. March 7th: Scabs removed ten days ago, leaving raw surfaces, which have now entirely healed under boracic acid ointment. This patient is much improved, but there are still tubercles studded about.

CASE 4. *Lupus of face and leg*.—C. G.—, aged twenty-two, female. Disease of thirteen years' duration, and began as a small, hard nodule on the right cheek. Face has been blistered repeatedly, but never scraped. Admitted Dec. 31st. Patient in very good health. Chest normal. Both cheeks, nose, and chin are affected. There is also a large quiescent patch on the posterior aspect of the right ankle and a small patch on the back of the left shoulder. Towards the centre of the affected parts the disease seemed quiescent, while towards the edges tubercular nodules could be seen and felt. The disease also affected the gums, roof of mouth, uvula, and tonsils, these being red and granular. Part of the uvula had been eaten away.

Treatment.—On Jan. 2nd she received a first injection of 0·003 gramme. An hour after the injection the temperature fell to 96·4°, and then began to rise. In eleven hours it reached a maximum of 102·2°, with pulse 108. It kept as high as 102° for fourteen hours, when it gradually fell to normal. On the day after the injection a measly rash appeared over her chest and back. It lasted for about twelve hours. The local reaction was very marked. The gums were very red and swollen, and the patient complained of feeling her teeth "loose." The nodules have disappeared considerably, but are still present, and the diseased parts are, with the exception of the nose, now quite on a level with the surrounding healthy skin. The last injection, given on March 4th, was 0·4 gramme, the largest dose by far yet given at this hospital. In this case no raw surface has been caused, but a great deal of whitish scaly debris has been thrown off. The affected mucous membrane now appears quite normal, and shows no reaction after injection. The patch on the ankle has several times become slightly red, but lately has shown no change, and looks quite cured; no tubercles whatever discernible.

CASE 5. *Pulmonary phthisis*.—J. W.—, female teacher aged thirty-eight; no family history of phthisis. Admitted Jan. 3rd, complaining of cough and expectoration. She has also been much troubled with dyspnoea. She has been under Dr. Fergusson's observation for five years, during which time the physical signs have shown very gradual though intermittent extension of the disease. On admission she was much thinner than she had ever been before. The temperature has never been high, even at night. She was most anxious to try the treatment, as she felt herself gradually becoming weaker. Bacilli were found in the sputum. On examination flattening and diminished expansion of left side in infra-clavicular region were found, dulness well marked down to fourth rib, and in supra-spinous fossa behind. Tubular breathing over infra-clavicular region, with cavernous breathing between first and second ribs. Large and small moist sounds over the whole of the same area. Harsh breathing

at right apex, with occasional moist râles in supra-spinous fossa. Diminished respiratory murmur in lower lobe behind on left side. Otherwise the chest sounds were fairly normal.

Treatment.—She has received thirty-three injections, ranging from 0·001 gramme to 0·1 gramme, the last being repeated ten times. The highest reaction has been after the fourth injection, when the temperature rose to 100·5°. She has shown no general symptoms beyond feeling somewhat dull and heavy after the injections. Sputum on admission was four ounces and is now six drachms. No marked change has taken place in the physical signs, but the dyspnoea has been entirely relieved, the patient herself saying that it is now a pleasure to breathe compared with what it was before admission. The cough is also much relieved. This patient still reacts to 0·1 gramme, her temperature being normal the intervening two days, and rising to about 100° on the day of injection. She is up and walking about the corridors.

CASE 6. *Lupus of back and nose*.—A. M.—, single, aged forty, fishwoman. Disease of fourteen years' duration. First appeared as small nodule on the back of the left shoulder, and has gradually spread since. It has never been quite whole on the back. About five months ago a small nodule appeared on the right ala of the nose. This shortly after broke down, forming a small ulcer. Admitted Jan. 17th, in good health; chest normal. On centre of right ala was a roundish deep ulcer with pouting edges. At the edge of the right nostril was a slight erosion not so deep as the former. Around these were several small hard nodules, and the surface around them had a red appearance. The redness also extended for about an inch and a half upon the right cheek. Over the whole of the back of the left chest were seen old scars, white and seamed, and over the supra-spinous region of the same side was a reddish surface about the size of the palm of the hand, with a small active patch towards its outer edge. Over the right shoulder and extending downwards upon the deltoid region was seen a similar scarred appearance with two active patches.

Treatment.—The patient has received thirteen injections, the first being 0·003 gramme and the last 0·07 gramme. Little reaction followed the first three, but marked reactions were got with the fourth, fifth, and sixth. There was slight local reaction after the first three injections, but after the fourth the affected parts on the nose became much swollen, and the surrounding redness more intense. The ulcer became quite filled up with a brown scar. The active patches on the back and shoulder also became red and congested, but have now ceased to react. The nose is much improved, and shows but slight reaction.

CASE 7. *Pulmonary phthisis*.—P. L.—, aged twenty-five, admitted Jan. 22nd. No family history of phthisis. His first illness was in the spring of 1887, when he had a bad cold, and spat up a little blood in the morning for a few days. In Sept. 1887, he had severe hæmoptysis, and consulted a medical man, when perceptible signs of disease in the right apex were found. On the doctor's advice he went to South Africa, but returned in June, 1890. He had no bad symptoms whilst in Africa. On admission the physical examination showed dulness in the right infra-clavicular region, but no difference could be seen on inspection. The breathing in the same region was bronchial, but there were no moist sounds. Bacilli were found in the sputum.

Treatment.—Patient has received nineteen injections, the first being 0·001 gramme, on Jan. 23rd, and the last, 0·1 gramme, on Feb. 20th. He has never felt any difference from the injections, except that after the eighth (0·01 gramme) he had slight difficulty in breathing with inclination to sit up for relief. On auscultation after this injection fine moist sounds were heard for the first time, but these could not be detected three days later. After the tenth injection he had slight cough but no expectoration. The temperature has never been high; after the tenth injection it rose to 100·2°, then fell to normal, and next day rose to 100·6°, which has been the highest reached. Since the fourteenth injection there has been no reaction at all. On physical examination it is now impossible to detect any difference between the two sides beyond a slight difference in the percussion note. No bacilli can now be detected in his sputum. This patient left as "cured" on March 7th.

Besides these cases, there are at present six cases of phthisis, three of lupus, and two of tubercular disease of femur under treatment, but they have not been sufficiently long under treatment to render a report on their progress of sufficient interest for publication.