

the use of old tuberculin in 18 cases and also of the bacillary emulsion of Koch in seven cases. Klebs³³ gives as a result of treatment by tuberculocidin: Stage I., 16 cases, 16 healed; stage II., 22 cases, none dead, none unimproved; and stage III., 68 cases, 41 essentially improved. Jessen's results are as follows: Stage I., 14 cases, in all a great improvement; stage II., 11 cases, 55.4 per cent. decidedly better; and stage III., 11 cases, 36.0 per cent. improved; this is usual in this stage. Von Ruck,³⁴ using tuberculocidin and antiphthisin, finds an apparent recovery in 81 per cent. of cases in stage I., 35.1 per cent. of cases in stage II., and 9 per cent. of cases in stage III.

Use of Marmorek's antituberculous serum.—This serum is given either in two doses daily of two and a half cubic centimetres each or in one five cubic centimetres for four days followed by a week's rest. The administration for four days followed by a week's rest is repeated three times. An interval of 14 days elapses and then the above course is repeated. If the temperature of the patient rises at any time no more serum is injected for a week. Marmorek³⁵ finds no results in advanced cases of pulmonary tuberculosis or in cases of tuberculous meningitis but there is improvement in less advanced cases of disease of the lung; rapid absorption of fluid was found in two cases of pleural effusion. No untoward local or general reactions occur. Dieulafoy³⁶ reports the results of the use of Marmorek's serum on four cases of pulmonary tuberculosis, two with pulmonary and laryngeal tuberculosis and one with effusion. The serum did not appear to have a favourable effect on the fever, the sputum, or the general nutrition. The observations were carried out in September and October, 1902. Guinea-pigs inoculated with tuberculous sputum and treated with the serum died sooner than control animals simply inoculated with tuberculous sputum. Klein and Jacobson³⁷ collected 31 reports on the use of this serum as published by Rothschild-Brunier,³⁸ Montalti,³⁹ Jaquerod,⁴⁰ Latham,⁴¹ and La Néele and de Cornières,⁴² and contributed cases of their own. Their opinion is favourable to the use of the serum. Montalti reports on six cases: the least advanced were practically cured and four others were distinctly benefited. Jaquerod thinks the results quite justify a continuance of the method. Rothschild-Brunier made observations on one case the subject of tuberculous lung disease and on several others which were being treated for fistula and bone and joint disease. Latham's results of the use of the serum in pulmonary tuberculosis point to a definite specific action on the part of the serum but for remedial purposes he recommended that the serum should be applied in cases less severe than the ones in which he tried the method. Lucas-Championnière⁴³ was unable to observe any favourable results in a case of Pott's disease, in tuberculous abscess of the hip, tuberculosis of the lungs and testicle, and two other cases of local tuberculous disease. Béraneck⁴⁴ reports that his tuberculin has been tried in 90 cases, with and without fever, and thinks that he has seen improvement in 60 per cent. Paris⁴⁵ gives full details of the mode of administration and dosage of Béraneck's serum. After the injection a general rise of temperature may take place with malaise, headache, rigors, and profuse sweats. Paris has used it in 65 cases, 14 of which were in the first stage of pulmonary tuberculosis, 19 in the second, and 32 in the third. As a result of the treatment, all the first group were cured, seven of the second, and none of the third. Other than the effects mentioned above Paris found the tuberculin quite harmless and in some 5000 injections had no case of abscess formation. Maragliano's serum appears to be disappointing, but Mircoli⁴⁶ gives details of the results in 2899 cases with cure in circumscribed febrile and non-febrile cases amounting to about 22 per cent.

Finally, there remains to be considered the antistreptococcic treatment of pulmonary tuberculosis. Menzer⁴⁷

gives the results of 22 cases. 11 of these cases were the subjects of pulmonary tuberculosis in the first stage; eight were cured (disappearance of catarrhal signs and an average gain in weight of 12 pounds in three and a fifth months), and three, still under treatment, gained five pounds in a little over a month. Three other cases in the second stage showed improvement with a gain of weight. Five cases in the third stage also improved, gaining weight, and three others were unimproved. Bonney⁴⁸ reports his results in the treatment of mixed infection in pulmonary tuberculosis. Of his 26 cases, three were quite cured; distinct improvement was found in 17 cases, though in eight of these symptoms alone were relieved, the ordinary course of the disease remaining unchecked; in the remaining six cases no results were obtained. Ostrovsky⁴⁹ describes how Menzer's serum is obtained from horses which have been rendered immune against streptococci obtained directly from man. Ostrovsky reports the results of treatment of 24 cases, possibly including Menzer's cases. 12 cases were cured, ten were definitely improved, and two were relatively improved. The methods adopted to estimate improvement in these cases is unsatisfactory, so that cure has a very doubtful meaning.

I have thus endeavoured to bring before you the various materials which may be used for the specific treatment of tuberculosis and also the results obtained. No material has, so far, been before the medical world so long as Koch's tuberculin. Judging from the evidence it would seem that the use of the tuberculin materially improves the results of treatment. It would seem therefore quite justifiable to supplement the ordinary treatment by sanatorium methods with this specific one. Tuberculin treatment is of little use alone, so that its re-introduction, though of such material value, would not reduce the cost of treatment.

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A CASE OF OESOPHAGEAL POUCH SUCCESSFULLY TREATED BY EXCISION.

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THIS case is interesting both from the point of view of diagnosis and treatment as well as from the comparative rarity of the affection.

In February, 1904, a woman, aged 55 years, was admitted to the Royal Free Hospital with the diagnosis of epithelioma of the oesophagus. Her chief complaint was difficulty in swallowing which had been coming on for eight years. In 1897 she was treated for "bronchitis" by her medical attendant. In 1899 she attended a throat hospital and was recommended to have some carious teeth removed but no improvement followed. In 1900 she attended another hospital, again for "bronchitis," but without improvement. Her "bronchitis," she said, consisted in bringing up a large quantity of frothy sputum from the throat but she never suffered from cough. During the previous six months there was a marked increase in the difficulty of swallowing solid food. She volunteered the information that she had regurgitated, not vomited, food quite unchanged as long as three days after taking it. As instances, she gave a pickled onion and portions of rabbit. She also complained that stooping caused regurgitation and that she made a curious noise on swallowing. The patient looked so thin and half starved that several surgeons who saw her were tempted to say, "Oh! she looks as if she had malignant disease." On examination of the neck no swelling or enlargement of the glands could be detected, but on bilateral pressure over the oesophagus just below the level of the cricoid cartilage, a certain amount of gas could be squeezed up into the mouth. On swallowing two or three times gas could again be squeezed up. A medium sized bougie stopped eight inches from the teeth and could be felt to the left of the trachea. A small bougie could be passed into the stomach.

³³ Jessen: Zeitschrift für Tuberkulose und Heilstättenwesen, 1903, Band v., Heft 2, S. 151.

³⁴ Therapeutic Gazette, 1896, p. 308.

³⁵ Loc. cit.

³⁶ Bulletin de l'Académie de Médecine, 1903, No. 39, p. 465.

³⁷ Bulletin Général de Thérapeutique, vol. cxlviii., pp. 132, 171, and 210.

³⁸ Progrès Médical, 1904, p. 375.

³⁹ Ibid., 1904, p. 283.

⁴⁰ Revue de Médecine, 1904, p. 375.

⁴¹ THE LANCET, April 9th, 1904, p. 979.

⁴² Bulletin de la Société de Thérapeutique, Feb. 10th, 1904.

⁴³ La Semaine Médicale, 1903, No. 49, p. 402.

⁴⁴ Loc. cit.

⁴⁵ Revue Médicale de la Suisse Romande, 1904, xxiv., 10, p. 629.

⁴⁶ Gazzetta degli Ospedali, Sept. 9th, 1900, p. 1121.

⁴⁷ Münchener Medicinische Wochenschrift, 1903, S. 1877.

⁴⁸ Medical News, 1903, June 13th, p. 1108.

⁴⁹ Du Traitement de la Phtisie Pulmonaire par le Serum Antistreptococcique de Menzer, Paris, 1903.

As an œsophageal pouch was now suspected from the history of regurgitation of unchanged food and from being able to squeeze up gas on pressure at the base of the neck two bougies were passed together. The first went into the pouch, the second into the stomach. The regurgitated food was examined for free hydrochloric acid but none was found. An attempt to throw some light upon the case with the Roentgen rays was unsuccessful. Metal bougies were used but seeing them at certain points in the neck was no evidence as to what prevented their onward passage. An attempt at filling the pouch with bismuth was also unsuccessful.

Operation by Mr. BOYCE BARROW.—A large œsophageal bougie was passed eight inches from the teeth and could be felt in the neck below, and to the left of, the cricoid. An incision was made four and a half inches long from the left sterno-clavicular articulation along the anterior border of the sterno-mastoid muscle. The sterno-mastoid was pulled outwards, the sterno-hyoid and sterno-thyroid inwards, exposing the carotid sheath. The vessels were then retracted outwards and the trachea was displayed to the inner side. The red muscular wall of the œsophagus was then seen and lying to the left of it and behind it was a white fibrous-coated pouch one and a half inches long with the bougie in it. On tracing the pouch upwards its neck was discovered to be in the lowest part of the posterior wall of the pharynx. The bougie was now removed and the fibrous coat of the neck of the pouch was divided and turned back as a cuff. The mucous membrane was then ligatured and cut through and the fibrous coat was stitched up over it. A few stitches were put in to bring the muscular coat together over the site of the neck of the pouch. A drainage-tube was placed down to the wall of the œsophagus and the rest of the wound was stitched up. The drainage-tube was removed on the third day as no saliva had come through, showing that the stitches were holding and that there was no infection from the œsophagus. The patient was fed by nutrient enemata for seven days and was then able to swallow milk. At the end of a fortnight she was discharged with the wound healed and was able to swallow any kind of food.

Two months later the patient reported that she had increased seven pounds in weight, that she had no difficulty in swallowing, that there was no regurgitation, and that she was no longer troubled with the frothy saliva which had caused her to be treated for "bronchitis." Eight months after the operation she again showed herself and was then three and a half stones heavier than at the time of the operation.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

PURPURA AS A LATE COMPLICATION IN A CASE OF SCARLET FEVER.

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THE patient in this case was a boy, aged four years, who suffered from scarlet fever and was admitted into the Blackburn Fever Hospital under the care of Dr. Alfred Greenwood on Oct. 27th, 1904. The illness commenced on Oct. 25th and the attack was of a fairly severe type, the throat symptoms being well marked. Nasal discharge was present on admission to hospital. Otorrhœa commenced in the left ear on Nov. 1st and in the right ear on the 7th and these discharges continued until the child's death. His temperature ranged from a minimum of 98° F. at 6 A.M. on Nov. 8th to a maximum of 102° at 6 P.M. on Oct. 27th. The symptoms existing at the time of admission underwent gradual improvement until on Nov. 8th it was noted that the child's general condition was good and his temperature normal. His temperature remained normal until the evening of the 11th, when it was 102°. On the 12th there was enlargement of the glands of both sides of the neck and tenderness on pressure. The neck was more swollen on the 13th and 14th, which swelling diminished until the 17th, it then being slight and remaining so until death supervened. On the 19th at 10 A.M. hæmorrhage was first noticed in the tissues around the left eye, causing

discolouration of the skin and swelling of the underlying tissues. There was also bleeding from both nostrils. On this day the temperature at 6 A.M. was 101° and at 6 P.M. it was 99·4°. On the morning of the 20th the skin around both ankles was seen to be affected by this hæmorrhagic condition over an area measuring one and a half inches by one inch. The skin was purplish-red in colour and there was some swelling of the underlying tissues. On the evening of the same day hæmorrhages, accompanied by similar discolouration of the skin, were noticed over the sacral regions (dimensions, four inches by four inches), the right hip (dimensions, one and a half inches by one inch), and both wrists (dimensions, two inches by one inch). The subcutaneous tissues over the right hip were markedly swollen and there was also swelling to a less extent over both wrists. The patient was now in a semi-comatose condition, very restless, and frequently crying out as if in pain. The respiration and pulse-rate were increased and the lips were blanched. The temperature on this date was 101° at 6 A.M. and 100·8° at 6 P.M.

On the morning of Nov. 21st it was found that the hæmorrhages had grown larger; the one in the sacral region now extended upwards towards the neck and outwards; the one over the right wrist extended upwards for about four inches and laterally across the whole breadth of the forearm; and the one over the left wrist extended laterally across the arm and upwards as far as the elbow. There was also more swelling of the underlying tissues. The condition of the patient during the day gradually became worse, the uræmia being more marked, and death took place at 6 P.M. from exhaustion. The temperature at 6 A.M. was 102·4° and at about 5.50 P.M. it was 100·6°. There were no other clinical signs beyond those mentioned. Astringent treatment internally failed to produce any beneficial effect. The urine was examined for blood and albumen on the 19th, 20th, and 21st, with negative result. There was no further bleeding from the nose after the 19th nor was there hæmorrhage from any other mucous membrane. The gums were normal. Inquiry failed to elicit any hereditary tendency to bleeding in the family. Two other brothers, who developed scarlet fever at the same time, have since recovered from the disease without any similar complication. The above-mentioned complication is exceptional, commencing during convalescence on the twenty-sixth day of the disease.

Blackburn.

NOTES ON A CASE OF TETANUS AND ITS TREATMENT.

BY FREDERICK W. HENDERSON, L.R.C.P. & S. IREL.

WHILE cutting hay on July 10th, 1902, a man was sharpening his scythe when he slipped and fell on it, cutting the palm of his hand. The cut extended from the head of the metacarpal bone of the index finger in a circular form to the base of the metacarpal bone of the little finger, deep down to the bones. The hæmorrhage was profuse, several arteries having to be ligatured. The wound was washed out with carbolic lotion and the edges were brought together with several sutures. Healing took place quickly without much discharge and the sutures were removed in a week or ten days' time. On July 25th symptoms of lock-jaw set in which chloral and bromides controlled very well. On August 1st several spasms of the muscles prevented the patient from walking and in falling in his room he caught hold of a chair to draw himself up, in doing which the edges of a corner of the wound were partly pulled open. On the 5th tetanic convulsions set in very acutely, all the muscles of the back and the legs being violently convulsed every minute. A telegram was at once sent to Messrs. Parke, Davis, and Co. of London for antitetanic serum which was injected early that afternoon and again in four hours' time. This checked the convulsions and an injection was continued morning and evening till 15 bottles of the serum were used when the convulsions entirely disappeared. The wound was frequently washed with carbolic lotion and dressed antiseptically and was completely healed on Sept. 1st.

I think the case is worth recording as the convulsions were well established before the serum was injected and the man was working at the end of September. Messrs. Parke, Davis, and Co. are highly to be commended on their prompt despatch of the serum.

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