TREATMENT OF HERPES ZOSTER WITH LIVER EXTRACT

BY

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Although the eruption of herpes zoster may appear without discomfort, the pain associated with the condition is sometimes considerable; and post-herpetic neuralgia may occur with such severity and persistence that, as Osler (1898) recorded, it has been known to drive a patient to commit suicide. The treatments recommended have been legion, including iron, arsenic, strychnine, gelsemium, valerian, and aconite, as well as the customary analgesics; freezing, liniments, diathermy, and the injection of distilled water beneath the skin have also been used.

Dickie (1946) relieved herpetic pain in prisoners of war by use of injections of liver extract, which was the only drug available. I have since had the opportunity of observing the effect of liver extract administered empirically to 20 patients with herpes zoster. In all cases the preparation used was "neo-hepatex," administered intramuscularly.

Case Histories

Case 1.—June 19, 1946. Male aged 76. Herpes of left forehead, with severe pain. Dosage: 4 ml. The following day there was no pain and the lesion had not extended. A further 2 ml. was given the next day. There was no post-herpetic pain or recurrence.

Case 2.—July 20, 1946. Male aged 47. Herpes of forehead. Dosage: 4 ml. first day, followed by 2 ml. on the two ensuing days. Pain ceased after the first injection.

Case 3.—Oct. 2, 1946. Female aged 71. Herpes involving the twelfth thoracic segment on the left side, with severe pain. Dosage: Two injections of 4 ml., with three days' interval. Pain completely relieved by Oct. 7.

Case 4.—Oct. 3, 1946. Female aged 63. Herpes of left side of head and neck, with severe pain. Dosage: 4 ml. on Oct. 3 and Oct. 5. Completely free from pain after Oct. 5.

Case 5.—Oct. 4, 1946. Male aged 16. Herpes of right buttock and thigh, with moderate pain. Dosage: 4 ml. Pain and vesicles disappeared in 24 hours.

Case 6.—Oct. 14, 1946. Male aged 77. Complained of post-herpetic neuralgia for 10 months. Dosage: 4 ml., with relief of pain. A further 4 ml. was injected on Oct. 16.

Case 7.—Oct. 28, 1946. Male aged 68. Post-herpetic neuralgia for 15 months. Three injections of 4 ml. produced no diminution of pain.

Case 8.—Nov. 28, 1946. Male aged 38. Herpes genitalis for 6 weeks. Dosage: 4 ml. on two successive days. By Dec. 3 the herpes had disappeared.

Case 9.—Jan. 13, 1947. Male aged 23. Herpes of left chest, with moderate pain. Dosage: 4 ml. on three successive days. Pain-free on Jan. 16.

Case 10.—Jan. 14, 1947. Female aged 75. Three days' history of herpes of right thigh, groin, and lower abdomen, with severe pain. Dosage: 4 ml. on two successive days. Complete relief of pain.

Case 11.—May 5, 1947. Female aged 56. Herpes of right upper thorax, right shoulder, and neck, associated with severe pain. Dosage: 4 ml. on May 5 and May 6; 2 ml. on May 10. The pain became considerably less by May 8, and the patient was pain-free on May 12.

Case 12.—July 1, 1947. Female aged 59. Two weeks' history of herpes of forehead, with moderate pain. Dosage: 4 ml. on July 1 and July 2, with diminution of pain.

Case 13.—July 14, 1947. Male aged 66. Herpes of left face for a week. Dosage: 4 ml. on July 15, 17, and 19. Pain relieved after first injection. Pain-free by July 26.

Case 14.—Sept. 8, 1947. Male aged 34. Two days' history of herpes of left groin. Dosage: 4 ml. on Sept. 8, 9, 12, and 15. By Sept. 15 he was pain-free and the rash had faded.

Case 15.—Sept. 18, 1947. Female aged 26. Herpes of left face, with considerable pain and constitutional disturbance. Dosage: 4 ml. on Sept. 20. This had no effect on the condition, which cleared, however, by Oct. 9.

Case 16.—Sept. 24, 1947. Male aged 22. Herpes of left chest. Dosage: 4 ml. on Sept. 24 and 25, with relief of pain.

Case 17.—Dec. 1, 1947. Female aged 67. One week's history of herpes of upper right chest. Two days previously the rash had spread to the right side of the neck and face, and there was considerable pain and malaise. Dosage: 4 ml. on Dec. 1, 2, and 8. Pain lessened after the first dose and completely disappeared by Dec. 12.

Case 18.—Jan. 21, 1948. Female aged 31. Two days' history of herpes of the left chest, with pain. Dosage: 4 ml. on Jan. 21. Pain-free, with no further extension of the rash by Jan. 24.

Case 19.—July 10, 1948. Female aged 58. One week's history of herpes of the left side of the neck. Dosage: 4 ml. on the succeeding two days. Pain was relieved by July 12, and had completely disappeared by July 19.

Case 20.—Aug. 19, 1948. Male aged 73. One day's history of herpes of right hip and abdomen, with severe pain and malaise. Dosage: 4 ml. on Aug. 19 and 21, with relief of pain.

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Medical Memoranda

A Case of Abortus Infection treated with "Aureomycin"

Spink *et al.* (1948) reported a series of 24 cases of human brucellosis due to *Br. melitensis* treated in Mexico with "aureomycin" (Lederle Laboratories). They say: "In such a disease a long follow-up study will be necessary to evaluate the drug completely. . . . But the immediate results of treatment have been so encouraging and so unexpected that this report is being made." The following is an account of a case of *Br. abortus* infection in which the immediate results were striking also.

CASE REPORT

The patient, a man aged 58, became ill fairly abruptly in the middle of February, 1949, at a time of influenza prevalence. The persistence of the illness led to its differentiation from influenza, and a blood agglutination reaction on March 16 gave a titre to *Br. abortus* of 1:500, less decisively 1:1,000. At this time the pyrexia was mainly at night, and often there was a night sweat. He was given 36 g. of sulphamezathine over six days without effect. The pyrexia next became diurnal also and the number of sweats increased to several in a 24-hour period. At this stage he was admitted to hospital on March 28, about six weeks from the onset.

His general condition was comparatively good, but he was anxious about his apparently interminable, uncomfortable, and incapacitating illness. Clinical examination did not reveal anything inconsistent with brucellosis; no enlargement of the spleen was detected. Agglutination reactions again gave 1:500 to *Br. abortus*, and blood culture was negative. An issue of streptomycin was obtained, but no apparent effect from the drug was noted with a dosage of $\frac{1}{2}$ g. intramuscularly every six hours, and after five days the drug was stopped. Two days later aureomycin was started by mouth and given as follows: one capsule (250 mg.) every twelve hours for two days and two capsules (500 mg.) every six hours for $7\frac{1}{2}$ days (a total of 16 g.

of drug). The initial smaller dose was to minimize any tendency there might be to a sharp reactive rise of temperature on beginning treatment—a tendency reported in the series of Spink *et al.*

After starting the drug the pyrexia, which had been broadly of an intermittent pattern swinging between limits of 97 and 102° F. (36.1 and 38.9° C.), became in about 24 hours more continuous and reached over 103° F. (39.4° C.); in a further 36 hours it began to fall rapidly and reached normal in about another 24 hours, where it remained. It was still steadily normal 10 days later, when the patient's wish to return home was acceded to (April 22), and on interviewing him on May 12 he reported continued freedom from his former febrile sensations, and a single check on his temperature gave a normal level.

The drug was easily administered and caused no apparent toxic reactions.

I am indebted to Dr. R. E. Jones, of the Public Health Laboratory, Coventry, for serological data and other assistance, and to Dr. T. H. W. Ritchie, of Bedworth, Warwickshire, for clinical information.

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Arteriovenous Fistula of the Lung

[WITH PHOTOGRAVURE PLATE]

Until recently arteriovenous fistula of the lung has only rarely been reported. It was thought worth while, therefore, to record the following case, with details of the investigations made to establish the diagnosis. The question of the advisability of surgical treatment in this case is discussed.

CASE REPORT

The patient, a man aged 36, first came under medical care in August, 1947, complaining of a dull ache in the right upper chest which he attributed to strenuous and unaccustomed exercise taken some two weeks before. There was a history of slight morning cough for some years, with an occasional trace of mucoid sputum, in which he had noted streaks of blood once only, on the day before he was first seen. This streaking has since been observed on another occasion. No dyspnoea or other symptoms have been present. His previous history was not relevant, and on close questioning epistaxis or other evidence of a bleeding diathesis was not admitted. Goldman (1948), in a review of the literature, has stressed the hereditary factors in the aetiology of the condition, but in this case the family history, so far as it could be obtained, was also negative.

Physical examination did not reveal any cyanosis or finger-clubbing, and no abnormal physical signs were found in the respiratory system. The pulse was regular at 80 per minute and was not collapsing in character. There was no evidence of enlargement of the heart or of cardiac murmurs. The blood pressure was 135/75 mm. Hg in both arms. A soft murmur, heard only in systole, was present over a roughly circular area about 6 in. (15 cm.) in diameter in the lower part of the right axilla. The murmur was faint but could be well heard with the patient lying on his left side and extended over a pillow. It was not appreciably affected by respiration. Careful examination of the skin and mucous membranes revealed no evidence of other haemangiomas or telangiectases. Other systems were normal.

The diagnosis was chiefly established by radiography. The postero-anterior film (Plate, Fig. 1) showed a mottled opacity in the lower zone of the right lung which on the lateral film overlay the lower part of the heart shadow. Between the opacity and the vascular markings of the right hilum was a longitudinal shadow which on tomography (Fig. 2) could be clearly identified as consisting of two main parts representing

branches of the pulmonary artery and vein. On screening, opinion was divided on whether the shadow pulsated, but it was noted in a bronchogram (Fig. 3) that, whereas nearly all the bronchial shadows, including those in juxtaposition to the heart, were present and clearly defined, those close to the main opacity were blurred.

Mr. R. C. Brock kindly arranged for angiography at Guy's Hospital, and the resulting radiograph (Fig. 4) leaves no doubt regarding the vascular nature of the lesion. Mr. Brock also reported a normal bronchial tree on bronchoscopy.

Blood examination revealed: red cells, 6,100,000 per c.mm.; haemoglobin (Haldane), 110%; white cells, 6,000 per c.mm., with a normal differential count. Oxygen saturation was found to be 89% in a specimen of arterial blood. The sedimentation rate was 2 mm. in one hour (Westergren). Culture of sputum revealed a mixed growth of normal pulmonary flora. The vital capacity was 4,500 c.cm. The electrocardiogram (three standard leads) was normal in all respects.

The case has now been observed over a period of seven months without any change in the clinical or radiological picture.

DISCUSSION

On the data available the lesion must be regarded as a vascular abnormality or tumour in the substance of the lung, with a minimal pulmonary arteriovenous shunt but no evidence of similar lesions or telangiectasia elsewhere, though the presence of such lesions cannot be excluded *ante mortem*. In view of the minimal shunt in this case the possibility of the systemic (bronchial) circulation being implicated, as suggested by Maier *et al.* (1948), must be considered. The main practical problem is whether surgical removal should be advised. On the one hand we are dealing with a virtually symptomless lesion with very little disturbance of the normal physiology. On the other there is the danger of haemorrhage and the possible extension of the lesion with an increase in the shunt or even malignant change. At the moment there would appear to be no general contraindications to surgery, but from the few reported cases it would seem that operative removal is not without risk, particularly where there is a large pulmonary arteriovenous shunt. There is also no certainty that other lesions are not present.

Surgical removal has been advised but so far refused, so that pathological data on the nature of the lesion are not available.

I would like to thank Dr. F. H. Young, physician to the Brompton Hospital, for permission to publish this case and for his helpful criticism; Dr. F. Prime for performing the oxygen saturation test; and Dr. L. G. Blair for the skiagrams.

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At a meeting of the Professional and Technical Council B of the Whitley Councils for the Health Services on April 20 the following agreement was reached on the salaries of medical laboratory technicians employed in the National Health Service in England, Wales, and Scotland. *Student and Junior Technician*: Aged 16, £110 per annum; 17, £125; 18, £145; 19, £165; 20, £195; 21, £225; 22, £240 10s.; 23, £260; 24, £279 10s.; 25 and over, £299. On passing the Intermediate Examination of the Institute of Medical Laboratory Technology (or equivalent qualification), or the Inter. B.Sc., the salary is increased by £13 per annum at any point on the scale. If no examinations are passed, the salary is increased to £312 per annum at age 30. *Technician*: £370×£15=£435. On gaining the Fellowship of the Institute of Medical Laboratory Technology (or equivalent qualification) the salary is increased by £15 at any point on the scale. *Senior Technician*: £450×£20=£530. *Chief Technician*: £530×£20=£650. London weighting: In the Metropolitan Police Area all scales are subject to London weighting on the following basis: Age 16-20, £10; 21-25, £20; 26 and over, £30. The new scales operate from April 1, 1949.