Effects of Inadequately Treated Early Syphilis

The Ministry of Health figures show that 10,705 male cases and 6,970 female cases of early syphilis were notified in this country in 1946. By 1952, owing mainly to penicillin therapy, these figures had dropped to 891 male and 462 female cases respectively.

Perhaps as a result of the somewhat uncritical use of penicillin during recent years there are indications that cases of relapse are more common than is usually realized. That these are frequently not recognized is due, in part, to the clinical picture they may present, but mainly to a growing and unwise belief that it is now safe to disregard the possibility of syphilis. The nature of the original infection has in some instances not been recognized; in others, the patient, deceived by the speedy initial response to penicillin and perhaps influenced by articles such as "the one-shot cure of syphilis," has defaulted from treatment in the belief that he has been completely cured.

Three cases of syphilis relapse (all seen within a period of four weeks) are presented to illustrate these points and as examples of the varied clinical pictures sometimes produced by incomplete treatment of early syphilis.

CASE 1

A labourer aged 27 complained of soreness of the mouth and scrotal ulceration, which had been present for about six weeks. The scrotal ulceration had been regarded as a result of trauma from the rubbing of his clothes. Examination revealed typical secondary syphilitic ulceration of the tongue and upper lip; the scrotum was similarly affected. Pharyngitis and laryngitis were also present, but ulceration could not be seen. There was a generalized adenitis with palpable occipital and epitrochlear glands. The skin and anus were not affected. The blood Wassermann and Kahn reactions were found to be strongly positive. Dark-ground examination of the lip scrapings showed *Treponema pallidum*.

The patient vigorously denied any sexual exposure during the past four years, and no history could be obtained of what might have been a primary infection. After further interrogation the patient admitted having suffered from secondary syphilis four years previously; he stated that he had defaulted from further treatment after one injection, as he thought he had been cured. His records were obtained and his statement was verified. Four years previously he had suffered from secondary syphilis, characterized by a maculo-papular rash, scrotal ulceration, and a strongly positive Wassermann reaction and Kahn test. He received one injection of 500,000 units of crystalline penicillin and had not attended for further treatment.

CASE 2

A man aged 47 was admitted to hospital with a history of attacks of sweating, lassitude, and frontal headaches for 10 days. Examination revealed no abnormality apart from a temperature of 101° F. (38.3° C.) and a pulse of 94. The fever and symptoms continued during the next week; routine investigations, including x-ray examination of the chest and agglutination tests, were negative. Chloramphenicol, 0.5 g. six-hourly, was given for one week. During the course of treatment a routine Wassermann reaction and Kahn test previously taken were reported to be strongly positive, and at the end of the chloramphenicol course the C.S.F. showed: "Clear colourless fluid, pressure 175 mm. H₂O, containing 30 leucocytes per c.mm., mainly lymphocytes; protein, 80 mg. per 100 ml.; chlorides, 730 mg. per 100 ml.; sugar, 53 mg. per 100 ml.; globulin, heavy excess; Lange curve, 110000; W.R., positive."

The patient denied any history of previous venereal disease. Further interrogation revealed that four and a half years previously, following sexual exposure with a prostitute, he had developed an inguinal adenitis. This had been treated with tablets (presumably sulphonamides) and one

injection of penicillin, given in the casualty department of a hospital. No further treatment was given and the adenitis slowly subsided.

A diagnosis of neurosyphilis was made, and after treatment with penicillin the patient's condition improved rapidly. Three weeks after starting treatment the C.S.F. showed: "Clear colourless fluid, pressure 220 mm. H₂O, containing 4 white cells per c.mm.; protein, 70 mg. per 100 ml.; moderate excess of globulin; Lange curve, 100000; W.R., positive." The blood Wassermann and Kahn test were again positive.

CASE 3

A widower aged 30 was referred from an eye clinic, where he had reported with soreness of the left eye which had been present for about three weeks. On other occasions (two to three months previously) he had experienced similar "eye soreness" and had attended the casualty departments of two general hospitals. At both hospitals drops had been ordered and the condition slowly subsided. Examination of the left eye revealed subacute iridocyclitis. A maculo-roseolar syphilide was present on the body and limbs, and generalized adenitis, scrotal ulceration, and condylomata lata between the toes of both feet were also noted. The W.R. was strongly positive, and scrapings from the condylomata contained *T. pallidum*. On interrogation, the patient admitted having had a penile sore six months previously, for which he had received one injection of penicillin.

COMMENTARY

The interesting feature of Case 1 is the unusually long period of "latency." The minimum effective dosage of penicillin in the treatment of early syphilis is not known, but most venereologists would agree with Moore (1947) that if treatment has been inadequate clinical relapse is most likely to occur between the fourth and the ninth month after treatment. The true nature of some relapses is likely to be missed unless it is appreciated that this latent period may be greatly prolonged. This case further stresses the importance of considering the possibility of a relapse of previously treated syphilis when the expected history of recent sexual exposure is unobtainable from a patient with an apparently fresh infection.

Case 2 presented as "pyrexia of unknown origin," and, as such, serves as a useful reminder that syphilis must not be disregarded as a possible aetiological factor in unexplained fevers. It was thought that the symptoms and raised temperature followed the onset of a localized syphilitic meningeal involvement, but of this there could be no certainty. It was also thought possible that the patient was suffering from asymptomatic neurosyphilis and that the immediate illness was caused by some indeterminate intercurrent infection. Case 3 is included as a fairly typical example of the course taken by a case of early syphilis which has received insufficient treatment.

Although presenting different clinical manifestations, these cases illustrate some of the sequelae of incompletely treated early syphilis and the dangers of the indiscriminate use of penicillin. A common feature with all three patients was the difficulty of obtaining a history of the original infection; the first and the third patients were of the opinion that they had been cured, and regarded their previous infections as "dead and buried." The latter was unaware of ever having contracted venereal disease. Unless such cases as these are recognized and adequately treated, they will constitute a danger to the individual, and perhaps to the community.

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REFERENCE

Moore, J. E. (1947). *Penicillin in Syphilis*. Blackwell Scientific Publ., Oxford.