PENICILLIN IN THE TREATMENT OF CHANCROIDAL BUBO

BY

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[The purpose of this paper is to describe fourteen cases of chancroid with fluctuant buboes, treated with penicillin at the Special Treatment (Tenno) Wing, British Commonwealth General Hospital, Kure, Japan, in January, 1952.]

INTRODUCTION

CHANCROID encountered in this area presented as multiple penile sores with, in many cases, a large painful unilateral fluctuant bubo. It was at this time customary to treat such cases with sulphonamides and repeated aspiration of the bubo. It was found that in an analysis of approximately one hundred cases of chancroid with fluctuant buboes, none was required to be kept in hospital for less than four weeks, and many were kept for as long as five to six weeks. Even when treatment was modified by the use of bubo lavage with mercurochrome, the length of stay in hospital was not significantly shortened. In an attempt to discover some method of reducing the time spent in hospital, it was decided to investigate the effect of penicillin in the condition.

There is conflicting opinion as to the efficacy of penicillin in chancroid. McElligott (1950) and McLachlan (1951) state that it is ineffective. Combes (1945) quotes Canizares as having observed the worsening of lesions following systemic administration of penicillin. Studies in vitro by Jennings (1949) indicate that \textit{Haemophilus ducreyi} is sensitive to penicillin in a concentration of from 0.075 to 0.25 units/ml. Further, there is of course the danger of masking a concomitant \textit{Treponema pallidum} infection.

INVESTIGATION

In view of the possibility that the bubo might at least in part be caused by secondary organisms, material from a number of buboes was aspirated under sterile conditions and staphylococci grown from several. These were found to be penicillin-sensitive.

Clinical Material and Treatment

Fourteen cases were selected. Each had multiple chancroidal lesions of the penis and an accompanying fluctuant bubo causing severe discomfort in walking. They were admitted to hospital and confined to bed. Sulphonamide (2 g. \textit{stat.}, 1 g. four-hourly to a total of 32 g.) was given, and saline soaks applied to the penile sores until dark-ground examination of the serum from the sores was found to be negative for \textit{Treponema pallidum} on three separate occasions. A Ducrey intradermal test was performed on each patient. In every case the result
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was positive. As soon as these investigations were completed (i.e., about the third day) a single injection of penicillin was administered directly into the centre of the bubo. In half the cases the injection consisted of 200,000 units of crystalline penicillin dissolved in 1 c.c. of sterile distilled water, and the other half, 300,000 units of procaine penicillin.

Results

In every case there was very rapid relief of pain, and the patient was able to get up and walk about within several hours of receiving the injection. The bubo had diminished markedly by the next day, and no sinus formation occurred. All the cases were fit for full duties on discharge by the end of ten days. The average stay in hospital was eight days.

Discussion

It is not possible to decide whether the striking results were due to the action of the penicillin on the Haemophilus ducreyi or on secondary organisms. Whatever the explanation, the treatment was a great improvement. Whilst a concomitant Treponema pallidum infection might be affected by the injection of penicillin into the bubo, the blood level produced by the dosage employed would appear to make this unlikely. If penicillin is in fact of value in the treatment of chancroid, then an injection into the bubo has an obvious practical advantage over systemic administration. Unfortunately, it was not possible to extend the investigations any further, but the results were so striking in the small series that it was considered worth while publishing the findings.

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References

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