Clinical and other Notes.

ACUTE MENINGOCOCCAL CONJUNCTIVITIS.

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Acute purulent conjunctivitis and the demonstration of Gram-negative diplococci in the conjunctival smear naturally arouses the suspicion of gonococcal infection. This article seeks to focus attention on the less widely appreciated point that another member of the Neisserian group of organisms may closely simulate acute gonococcal conjunctivitis. The importance of establishing a correct bacteriological diagnosis in such cases is obvious at any time but is particularly necessary under present conditions, where the number of meningococcal carriers amongst large concentrations of troops may be relatively high. Much inconvenience and hardship may otherwise be unjustly inflicted upon innocent persons.

The introduction of serum therapy greatly reduced the incidence of acute conjunctivitis which previously complicated the terminal stages of cerebrospinal meningitis. Thus Randolph in 1893 quoted Hirsch and Ziemssen and Hess as finding it as an invariable concomitant, and McKee (1908 and 1909) isolated and positively identified meningococci from the conjunctive of three patients suffering from cerebrospinal meningitis. With serum therapy, however, no conjunctivitis occurred in a series of 66 cases reported by Lewis and in only one of a large number of cases reported by Tillet and Brown in 1935. Cushing reported that conjunctivitis was present in four out of 124 cases of cerebrospinal fever prior to commencing chemotherapy. Reese has recorded the case of a student nurse who, following contact with cerebrospinal fever, developed an acute unilateral conjunctivitis and mild signs of meningitis which responded satisfactorily to serum therapy. Cultures from the conjunctiva, nose, throat, blood and cerebrospinal fluid grew Type I meningococci and, although meningococci were found in the cerebrospinal fluid, no classical signs of meningitis developed.

The occurrence of acute meningococcal conjunctivitis without other clinical evidence of meningococcal infection is, however, of greater importance than the occurrence of conjunctivitis complicating meningitis as described above. Several examples of the former are on record: Koplik, in a report on 77 cases of cerebrospinal fever, described one case in which there was a definite history of conjunctivitis prior to the appearance of meningeal manifestations, and Smith reported a case of meningococcal
conjunctivitis occurring in a nurse who had been exposed to epidemic cerebrospinal fever. In this latter case, the organism was clearly identified by cultural study and the conjunctivitis responded to local treatment in a few days, without the development of meningitis. More recently, Hayden et al., and Bennett have both recorded single cases of meningococcal conjunctivitis. In the former instance, one of the authors was infected by buccal spray whilst examining a hospital patient from whose sputum and post-nasal secretion the infecting organism was subsequently isolated and shown to belong to Type II. The conjunctivitis responded within a few days with purely local treatment. In the case described by Bennett, Type I meningococci were isolated from the conjunctiva alone and the eye condition was cured within seventy-two hours by local measures and chemotherapy with sulphapyridine. In both these patients it was noted that neither the degree nor the clinical course of the unilateral conjunctivitis was so severe as is commonly met with in cases of gonococcal conjunctivitis which was the provisional diagnosis made before complete bacteriological investigation had revealed that the Neisserian organism present was a meningococcus.

Case Reports.

We have treated two cases of acute meningococcal conjunctivitis which were referred to hospital within a period of nine months. In both cases a diagnosis of gonococcal conjunctivitis had been made before admission, but the absence of any evidence of infection in the genito-urinary tract led us to suspect that we were dealing with meningococcal conjunctivitis. The first case unfortunately received sulphapyridine before cultural studies were made but, in the second case, full bacteriological investigation confirmed the diagnosis. Neither case, at any time, showed clinical evidence of involvement of the central nervous system.

Case 1.—The patient, aged 23, was admitted to hospital in the late evening of February 28, 1940, ten days after joining the Army. His had had bronchitis for five days and, on February 27, 1940, he noticed that his eyes were “blood-shot.” On the morning of the day of admission he had photophobia, his eyes being painful, with swollen lids and a considerable amount of discharge. Exposure to venereal disease was convincingly denied. On examination the following morning, bilateral purulent conjunctivitis without severe chemosis or corneal ulceration was present. There was some catarrhal bronchitis and injection of the pharynx with mild pyrexia. Thorough investigation of the genito-urinary tract, including an examination of the prostatic fluid, revealed no abnormality. The conjunctival smear, taken on admission, contained numerous pus cells and Gram-negative diplococci. Local treatment and sulphapyridine had been instituted without delay on the night of admission and it was, therefore, not unexpected when conjunctival and post-nasal cultures, taken the following day, failed to grow any Neisserian organism. The patient was completely cured by March 6, 1940, the eyes being normal and the respiratory condition having completely abated.

Case 2.—The patient, aged 21, was admitted to hospital on December 7, 1940, with a history of discharge from the left eye for two days previously and coryza. The right eye was normal. There was a fairly profuse muco-purulent discharge from the left eye and slight oedema of the lids. The whole of the cornea showed
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punctate staining points with three marginal ulcers between 11 and 1 o'clock. The smears showed a large number of pus cells and Gram-negative diplococci, the majority of which were extra-cellular. They resembled gonococci except in the absence of the characteristic concavity of the adjacent sides of pairs. Cultures and agglutination positively identified the organism as a Group I meningococcus. Treatment with M & B 693 was instituted the same day and a post-nasal swab, taken twenty hours after commencement of treatment, showed a practically pure growth of chromogenic Neisseria. Eight days after admission the cornea had healed and the conjunctivitis had practically resolved. Six days later, a horizontal line of minute staining points appeared on the cornea but, by December 26, 1940, there was complete clinical recovery. A post-nasal swab, from which no meningococci could be grown, was taken prior to discharge.

SUMMARY.

Two cases of acute purulent conjunctivitis caused by meningococci are described, in which other clinical evidence of meningococcal infection was absent. The condition may easily be confused with gonococcal ophthalmia unless this possibility is kept in mind and a full bacteriological study is carried out. In general, it would appear that the severity and clinical course of meningococcal conjunctivitis is less severe than that of gonococcal ophthalmia and that a rapid cure is achieved by orthodox local treatment with or without chemotherapy.

We are indebted to the Commanding Officer of a military hospital for permission to use the clinical notes of these cases.

REFERENCES.


NOTES ON CASES OF CHRONIC DIARRHEA AND VAGUE ILL-HEALTH, APPARENTLY DUE TO THE FLAGELLATE GIARDIA LAMBLIA.

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The significance of Giardia lamblia in the stools has long been controversial. An account is given in these notes of the results in lamblia of atebrin therapy which, due to its apparent “specificity” for Giardia, provides a new means of investigating the pathogenicity of this flagellate.