

Gonococcal Meningitis: A Case Report

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Summary

Obi JO, Diakparomre MA and Wemambu SNC. Gonococcal Meningitis: A Case Report. *Nigerian Journal of Paediatrics* 1981;8:79. A rare case of gonococcal meningitis in a 3-month old infant is reported. High vaginal swabs obtained from the mother showed intracellular gram negative diplococci thus indicating the source of the infection. The *Neisseria gonorrhoeae* cultured from the CSF was sensitive to cloxacillin and pyopen but resistant to penicillin and other commonly used antibiotics. It is concluded that the practice of indiscriminate and widespread use of antibiotics in Benin and indeed, throughout the country, was probably responsible for the sensitivity pattern shown by the organism.

Introduction

PURULENT meningitis in African children have been reported by several workers.¹⁻³ None of these reports has incriminated gonococcus as causative pathogen. We report here, a case of gonococcal meningitis in a child.

Case Report

Patient (UBTH 88831), a 3-month old male infant was delivered at home. He presented with diarrhoea, cough, and fever for 2 days; refusal of feeds, discharging eyes, and generalized convulsions for one week. The mother was a housewife and the father, a taxi driver. The patient was the last of 3 children and all had been delivered at home without obstetric supervision during pregnancy.

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Physical examination revealed scarification marks all over the body, a temperature of 38.3°C, dyspnoea, and 10% dehydration. There were crepitations in both lung fields. A provisional diagnosis of septicaemia was made.

Investigations carried out included a chest X-ray which showed bronchopneumonic changes, and a lumbar puncture which revealed a turbid cerebro-spinal fluid (CSF) with protein of 0.8gm/dl (80mg%) and cell count of 0.16×10^9 cells/L (160 cells/cm³) with 80% polymorphs. The CSF culture yielded *Neisseria gonorrhoeae*, sensitive to cloxacillin and pyopen but resistant to penicillin, ampicillin, septrin, gentamycin, sulphamidè and tetracycline. The blood sugar was 9.60mmol/L (173mg/dl). The packed cell volume (PCV) was 0.30(30%) and total white blood count, 8.0×10^9 /L (8000/mm³) with normal differential count.

Blood urea and electrolytes were normal except for hypokalaemia (potassium, 1.8mEq/dl; 1.8 mmol/L). Gram-stain of the eye swab showed only pus cells, and yielded no growth after 48 hours incubation. The child was rehydrated and

the hypokalaemia corrected. The bronchopneumonia and gonococcal infection were treated with cloxacillin. The convulsions were controlled with diazepam and phenobarbitone. He also had chloramphenicol eye drops applied to both eyes.

A repeat lumbar puncture 8 days after admission showed normal CSF. The systemic antibiotic was however continued for a total of two weeks. The patient was discharged home on phenobarbitone after 18 days admission. High vaginal swabs from the mother yielded no organism on culture, but showed intracellular Gram-negative diplococci.

Comments

Although gonococcal vulvo-vaginitis is not infrequently seen among children in Nigeria,⁴ gonococcal meningitis has not, to our knowledge, been reported from this country although it has been reported elsewhere.^{5,6} In a majority of the reported cases of vulvo-vaginitis in children, no source of infection was found.⁴ A urethral swab culture which probably could have yielded *Neisseria gonorrhoeae* was not done in our case. The father of the patient was not available for examination for possible source of the infection. In the present case, the source appeared unknown although it is very likely the infant got the infection from the mother since the mother's vaginal swab showed intracellular Gram-negative diplococci.

The possibility of indirect transmission of infection through such agents as fomites, towels,

beddings and under-clothes has been raised by many authors⁴ and elegantly demonstrated by means of series of *in vitro* tests.⁴ In crowded households such as the one in which our patient lived, the possibility of an indirect transmission of the infection is high. Indiscriminate and unsupervised use of antibiotics contributes to the low yield on culture of *Neisseria gonorrhoeae*^{7,8} and to drug resistance. The *Neisseria gonorrhoeae* isolated was resistant to the commonly used antibiotics. Over the past two decades, attention has been directed to resistance of *Neisseria gonorrhoeae* to commonly used antibiotics, particularly penicillin to which some strains of gonococcus produce penicillinase to inactivate.^{8,9}

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