

Post Circumcision Meningitis In A Male Infant: A Case Report

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Abstract

OA, an 11-month-old male infant was admitted to Wesley Guild Hospital, Ilesa, Nigeria on 23rd of July 2004 with a 2-day history of fever, irritability and convulsions. A nurse colleague of his father had earlier circumcised him at home. Physical examination revealed an ill febrile irritable infant, with septic glans penis and hepatosplenomegaly. Meningitis was diagnosed following lumbar puncture and *Staphylococcus aureus* with identical antibiotic sensitivity was isolated from both the turbid cerebrospinal fluid and the penile glandular swab. Though management with Ciprofloxacin was adversely uneventful, we cite this hitherto unreported case of post-circumcision *Staphylococcal* meningitis to emphasise the need for a critique of this practice, particularly in this region.

INTRODUCTION

Male circumcision is a minor surgery involving the partial or total removal of the prepuce or foreskin of the penis. ¹

Although its origins are unknown, earliest evidence of the practice dates from ancient Egypt (2300 BC), where it was originally performed to mark male slaves. ² This commonplace practice transcends extensive ethnic, religious and geographic boundaries. ² Indications for this procedure may be religious, traditional or medical. ^{1, 2}

A wide range of 'surgeons' from novices to professionals executes the practice though usually with 'minor' but occasional life threatening or fatal complications. ¹ Fatal haemorrhage, infections, phimosis, meatal stenosis, seizures, ischaemia, disfigurement and amputation of the penis have been documented following circumcision. ^{3,4,5, 6} These complications rarely occur when competent personnel perform the procedure. ⁷

Time and again, there has been concern with regards to the advantages and necessity if any, of this common operation. The infant presented in this article following circumcision developed meningitis, a major and dreadful contributor to infant morbidity and mortality. ⁸ This unusual case is presented to highlight the need for a critical re-evaluation of the practice particularly in the developing countries.

CASE REPORT

AO, an 11-month-old boy was admitted into the children

isolation ward of the Wesley Guild Hospital, Ilesa: an affiliate unit of the Obafemi Awolowo University, Ile-Ife, Nigeria, on the 26th of July 2004. He had been feverish 2-days prior admission. He subsequently developed irritability and convulsive movements of the lower limbs, but was feeding well through out this period. He had been circumcised 3 days before the onset of fever. A nurse colleague of his father had earlier circumcised him at home but he bled moderately during the procedure, and this was controlled with extra dressing and pressure. The past medical history was not contributory. His mother was a 36-year-old civil servant and Father, a 42-year-old orthopaedic nurse.

Physical examination revealed a conscious, acutely ill, pale and febrile infant with an axillary temperature of 38.1°C. He was anicteric and pale, but irritable. The heart rate and respiratory rate were 180 beats and 72 cycles per minute respectively. Besides the presence of moderate hepatosplenomegaly, no other abnormalities were detected. However, the penile glans was still raw and septic. The yet unchanged dressing was still bloodstained.

Septicaemia was diagnosed. His haematocrit was 26 percent. Lumbar puncture revealed turbid Cerebrospinal fluid (CSF) on the basis of which, he was commenced on intravenous fluids, Ampicillin and Gentamicin. The gram staining revealed gram-positive cocci in clusters. Unfortunately, CSF proteins were not estimated. But the CSF microscopy

showed 20 white and 2 red blood cells per cubic millimetre. His random blood sugar and CSF glucose were 7.4 and 0.5 millimoles per litre respectively.

Twenty hours later, he convulsed and lapsed into unconsciousness with bulging anterior fontanelle and generalised increase of muscle tone. The convulsions were terminated with intravenous Diazepam. The culture of both the wound swab and CSF yielded *Staphylococcus aureus* with similar antibiotic sensitivity and resistance. The antibiotic was changed to intravenous Ciprofloxacin, in line with the antibiotics sensitivity pattern obtained. Also, he was given intravenous Dexamethasone and intramuscular Phenobarbitone to forestall further convulsions. The patient made a good recovery and was discharge on the 12th day post admission.

DISCUSSION

Male circumcision is a common procedure usually done for religious or traditional rather than for medical reasons.^{1, 2} Opinions on the indication and the need for circumcision are divergent. It has been described as the most controversial surgery,⁹ consequently, there has been a decline in the practice of this procedure in some geographical locations.¹ The reasons adduced for this are because of the associated complications.^{3,4,5,6}

Circumcision was the only known obvious risk factor predisposing the development of meningitis in the case described. The presentation of the infant on the third post-circumcision day, confirms the fact that complicated cases tend to present within the first week of circumcision.³ The antecedence of circumcision and the bacteriological yield of *Staphylococcus aureus* from both the penile swab and CSF give the indication that the circumcision predisposed the child to the meningitis. Notably, *Staphylococcus aureus* is an unusual CSF isolate in meningitis at this child's age.⁸

There are two main issues surrounding this case, first, female child circumcision has been condemned and outlawed because of the associated risks.¹ Should routine male circumcision be abolished too? Whereas serious complications like haemorrhage, infections, amputations of the penis can arise from the practice,^{3, 4,5,6} there is very little in form of benefit that can be recorded in its favour.^{1,9, 10} Governments should come up with well-thought-out legislation in view of the benefits and possible risks of this procedure. The second issue surrounds the levity with which minor surgical procedures like circumcision and ear piercing

are held, such that persons with poor or limited surgical training perform them with resultant complications as in this case. This is further emphasised by the poor adherence to aseptic dressing technique in such cases as evidenced by the blood-smeared yet unchanged dressing and the raw septic state of this child's penile glans. This sets the table for infections. Yet, traditional practitioners undertake male circumcision with few complications. Oyelami has commented that some useful tips can be learnt from them concerning the prevention of haemorrhage and infections in surgeries such as uvulectomy and circumcision.¹¹ More efforts need to be put into public awareness of the risks associated with circumcision especially by quacks. Appropriate authorities must ensure that all health practitioners no matter their field acquire adequate technical and overall competence.

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