Treponema Pallidum septic abortion: A case report


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ABSTRACT

Treponema pallidum is not a typical organism one expects to implicate as a unilateral or single aetiologic agent in embryonic demise. In this case, syphilis was the only infection detected following an embryonic demise in an 18yrs old Gravida 6 Para O. However associated febrile presentations and hypotension subsided with the administration of intramuscular injection of paracetamol, appropriate doses of antibiotics as well as infusion with intravenous fluids.

INTRODUCTION

Treponema pallidum, the spirochete of syphilis is found in Genus 111, alongside other pathogenic spirochetes [1]. T. pallidum is an actively motile, slender, cork screw-like organism. It is abundant in chancres and mucous patches, with six to fourteen spirals, it rotates on its long axis, may bend on itself and despite of its rotary motion, it has a slowly progressive motion. The organism is difficult to stain with ordinary bacteriologic dyes and its best demonstrated by dark-field microscopy [2]. Also, these microorganisms do not stain well with aniline dyes, but they can be seen in tissue when stained by a silver impregnation method [3].

T. pallidum is well known as the aetiiological agent of diseases such as yaws, bejel and pinta [4]. However, recent report has implicated this spiral microaerophilic organism in septic abortions. This report is coming against the back ground that syphilis as a venereal disease hitherto, thought to be on verge of elimination, is gradually on resurgence in our local communities. The reason for this new trend may not be far-fetched. Syphilis is responsible for about 0.08% of perinatal deaths in unbooked mothers [4, 5]
CASE REPORT

A pregnant 18 year old gravida 6 para O woman, at 9 weeks gestation, reported a week’s history of severe lower abdominal pains, accompanied by fever, headache and constant vomiting. She has earlier taken a bi-daily 5 day course of ampiclox on self prescription, to no avail.

She was stabilized with intravenous fluid, intramuscular paracetamol, metoclopramide while, samples of blood, urine and high vagina swabs were taken for investigation. An abdominal ultrasound scan was immediately conducted. The scan demonstrated a fetal size consistent with an 8 week gestation; however, there was no demonstrable fetal movement or fetal cardiac activity. She was subsequently taken in for immediate dilation and curettage with evacuation secondary to fetal demise (embryonic demise).

Following the procedure, the patient became hypotensive, had a spike in temperature, and developed rigors.

Blood investigation reveals a white blood cell count of 1000 cells /mm$^3$ and a platelet count of 130,000/mm$^3$. Urine microscopy, culture and sensitivity revealed nothing significant. High vagina swab culture showed no growth after 24 hours of incubation. However, a VDRL done was instantly positive.

The sample was subjected to further dark field examination, where an exudate collected from cervix was placed on a slide and a cover slip pressed over it to make a thin layer. The preparation, when examined under oil immersion and darkfiel illumination showed several motile spirochetes, indicating that the embryonic demise was apparently due to *Treponema pallidum* infection.

Patient was then placed on penicillin, by the following day after the evacuation and curettage, her white blood cell count has risen to 17,000 cells/mm$^3$. Her blood pressure had also stabilized at 120mmHg systolic and 70mmHg diastolic. She was subsequently discharged on day seven and had an uneventful 10 day course of antibiotics.

Discussion

Syphilis is one of the infection know to cause fetal demise among other infection in the TORCH’S Syndrome. Syphilis was hitherto, not considered as a major infection that leads to fetal death, hence, it was group among other likely infections [6, 7].

Septic abortion attributed to Treponema pallidum was earlier reported with a prevalence of 1.3% [8].

In Nigeria, the annual incidence of infections with syphilis has not been determined; however, there are fears of a rise in reported cases in recent times. Infection with *T. pallidum* is usually transmitted by sexual contact and infectious lesions are seen on the mucous membranes of the genitalia or the skin. In 10-20% of cases, the primary lesion is intra-rectal, Peri-anal or oral [2].

Following the multiplication of an inoculum at the site of entry and subsequence spread to nearby lymph node and bloodstream, a papule develops at site of infection, breaks down, forming an ulcer, with a clean, hard based called a hard chancre, within 2-10 weeks. This lesion will heal spontaneously in most cases. After another 2-10 weeks secondary lesions appears,
consisting of red maculopapular rash on the body and pale papules (condylomas) in the anogenital region, axilla and mouth [7, 9, 10]. These lesions may subside spontaneously. However, it is pertinent to add that both primary and secondary lesions are rich in spirochetes and are very highly contagious [11].

It has been reported that in about 30% of cases, early syphilitic infections progresses spontaneously to complete cure without treatment. In another 30%, untreated infection remains latent with positive serological tests while in the remainders, the disease progresses to the tertiary stage with characteristic development of gummas in the skin, bones and liver among other symptoms [12].

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REFERENCES


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