

## A Monomicrobial Infection Of *Staphylococcus Aureus* Associated With Erectile Dysfunction - A CASE REPORT

<sup>1</sup>Momoh, A.R.M., <sup>2</sup>Idonije, O.B., <sup>3</sup>Okogbo, F., <sup>4</sup>Okhiai, O., <sup>5</sup>Ekhaton, C.N., <sup>1</sup>Okolo, P.O., <sup>6</sup>Turay, A.A., <sup>7</sup>Momoh, A.A

Departments of <sup>1</sup>Medical Microbiology, <sup>2</sup>Chemical Pathology, <sup>3</sup>Obstetrics and Gynaecology, <sup>4</sup>Nursing, <sup>5</sup>Physiology, <sup>6</sup>Medical Laboratory Sciences, <sup>7</sup>Microbiology, Ambrose Alli University, Ekpoma, Edo State, Nigeria.

[dridonije@yahoo.com](mailto:dridonije@yahoo.com)

**Abstract:** *Staphylococcus aureus* is a very common pathogen implicated in urinary tract infections, in males and females as well as pelvic inflammatory disease in the female. This organism is also a vital aetiologic agent in wound infections and in some cases diarrhea. This unique bacterium has also been associated with cases of infertility in males and females. However, hitherto, there has been little or no evidence linking *Staphylococcus aureus* with erectile dysfunction as seen in this reported case.

[Momoh, A.R.M., Idonije, O.B., Okogbo, F., Okhiai, O., Ekhaton, C.N., Okolo, P.O., Turay, A.A., Momoh, A.A. A Monomicrobial infection of *Staphylococcus aureus* associated with erectile dysfunction - A case report. Nature and Science 2011;9(8):85-87]. (ISSN: 1545-0740). <http://www.sciencepub.net>.

**Keywords:** *Staphylococcus aureus*, Erectile dysfunction, Monomicrobial infection.

### Introduction

*Staphylococcus aureus* are Gram positive bacteria and though pathogenic some are also members of the normal flora of the skin and even mucous membranes of humans (Jaweta *et al.*, 2004). Some other strains of the organism cause suppuration, abscess formation, pyogenic infections as well as septicemia which may be fatal (Momoh *et al.*, 2009)

*Staphylococcus aureus* grow readily on most bacteriological media, under aerobic or microaerophilic conditions at temperatures of 37°C, while forming pigments between 20-25°C (Smith, 1976).

The organism produce catalase, this differentiates it from streptococci. It also slowly ferments carbohydrates, producing lactic acid but not gas.

Though *Staphylococcus aureus* is variably sensitive to several antibiotics, it also shows resistance to several others, while its ability to resist antimicrobials can be attributed to the production of beta-

lactamase, hence, inducing resistance to penicillins, with the resistance factor located either in plasmids or chromosomes (Momoh *et al.*, 2009). *Staphylococcus aureus* may also show tolerance to antibiotics, implying that *Staphylococcus aureus* are inhibited by an antibiotic but not killed by it, i.e, there is a great difference between minimal inhibitory and minimal lethal concentrations of an antibiotics (Novick *et al.*). Invariably, Patients with endocarditis caused by a tolerant *Staphylococcus aureus* may have a prolonged clinical course compared with patients who have endocarditis caused by a fully susceptible *Staphylococcus aureus*. Tolerance can at times be attributed to lack of activation of autolytic enzymes in the cell wall (Lowy, 1998).

### Case Report

A 22years old man presented with a 16 months history of inability to have an erection for penetrative sex after several attempts and herbal attempts at correction. He admitted to having occasional penile

discharge, which is not associated with pains and non-foul smelling.

Prior to presentation, he has only consulted herbal practitioners and attempted herbal remedies only. Patient was in stable conditions with optimal vital signs though he was looking worried.

Subsequently, a urethra swab as well as urine samples were taken for microscopy, culture and sensitivity.

While the urethra swab microscopy showed: Epithelial cells: 0-2/hpf  
Pus cells: 2-3/hpf  
Red Blood cells: Nil  
Yeast cells: Nil  
Parasites: Nil  
Bacteria: Seen (+);

The urine Microscopy however revealed:

Epithelial cells: 4-5/hpf  
Pus cells: Numerous/hpf  
Red blood cells: Nil  
Yeast cells: Nil  
Cast: Nil  
Crystals: Nil  
Parasites: Nil  
Bacteria: Seen (++)

Both cultures however, yielded heavy growth of *Staphylococcus aureus* after 24 hours of incubation at 37°. No other pathogenic bacterial isolate grew on the agar plate.

Isolated *Staphylococcus aureus* strains were however sensitive to ciprofloxacin (3+), Rifampicin (3+), Gentamycin (2+), Erythromycin (+) and Chloramphenicol (+). The isolates were resistant to Streptomycin, Tetracycline, Penicillin, Cloxacillin and Ampicillin.

The patient was placed on combined antibiotics therapy consisting of ciprofloxacin 500mg twice daily for 7 days, Nitrofurantoin 100mg twice daily for 7 days, Metronidazole 200mg 8hourly for 5 days and Doxycycline 100mg twice daily for 7 days.

Patient was also given IV Gentamycin 80mg stat dose. Furthermore, the patient's current partner, as at presentation, was also given the exact medications, as the patient; starting therapy together and ending together.

Suffice to add that by the fourth night of antibiotics therapy, patient was able to achieve effortless penetrative sex and subsequently reported same on day 5.

However, there were mid-gastrointestinal disturbances of both patient and his partner, but both were counseled and advised to complete drug therapy. The mid-gastrointestinal disturbance may be attributed to nitrofurantoin, a urinary antiseptic or doxycycline or both. A repeat of urethra swab and urine microscopy, culture and sensitivity, 10 days later revealed insignificant bacteria growth after 48 hours of incubation, with no pus cells or epithelial cells. Other findings were insignificant.

## Discussion

*Staphylococcus aureus* along with other pathogenic bacteria has been associated with cases of primary infertility (Ibeh, 2001).

Male infertility, a common problem world wide, is often not given the adequate attention it deserves in Nigeria (Okonofua *et al.*, 2005). It is estimated that the male factor accounts for 20-50% of the cause of infertility in different parts of Nigeria and erectile dysfunction is a common problem in the male (Esima *et al.*, 2002; Chuwvdebelu *et al.*; 1979).

Not much has been reported with respect to a monomicrobial infection being responsible for erectile dysfunction. When males are unable to attain a sustainable erection for penetrative sex, various sundry reasons are adduced; most notably, antihypertensive medications, ailments affecting higher centers of the brain and even polymicrobial infections. It is common knowledge that in our societies,

impotence has led to several broken marriages, even when research shows that in some places male factor has a 50% share of the problem of infertility and sexual satisfaction among couples (Agboola, 2004).

It is note worthy to add that the combined antibiotics used in the management of this monomicrobial infection may have aided the patient, so much so as, there was a report of sustainable penetrative sex 96 hours after therapy was initiated.

### Acknowledgement

The authors appreciate sincerely efforts of Miss Nkechi and Mr. Omon of Nkechi Computer Centre, Ujoelen, Ekpoma, Edo state, Nigeria for their secretariat assistance and also staffs of Blessed / Calvary Medical Centres, Ekpoma, who in one way or the other assisted in ensuring the success of this research.

Corresponding Author

**Dr. Idonije, O.B**

Department of Chemical Pathology, College of Medicine, Ambrose Alli University, Ekpoma

Email: [dridonije@yahoo.com](mailto:dridonije@yahoo.com)

### References

1. Agboola, A. (2004). Sexually Transmitted Diseases. In Akin, A (ed). Textbook of Obstetrics and Gynaecology vol.1 Heinemen Educational Books Ibadan Pp 90-91.
2. Chukwudebelu, W.O., Esege, N., Megafu, U. (1979). Etiological factors of Infertility in Enugu, Nigeria. *Infertility* 2:193-200.
3. Esimai, O. A., Orji, E.O., Lasis, A.R. (2002). Male contribution to infertility in Ile-Ife, Nigeria. *Niger J Med* 11:70-72.
4. Jawetz, E. (2004). The Staphylococci In: Brooks GF, Butel JS, Morse AS eds. Medical Microbiology 23<sup>rd</sup> ed. Stamford-Connecticut. Appleton and Lange Pp 223-228.
5. Lowy, F.D. (1998). *Staphylococcus aureus* Infections. *N Engl J med.* 339:520
6. Momoh, A.R.M; Odike, M.A.C; Omorogbe, F.I.O; Emordi, J.E. (2009). The Microbial Profile of septic abortion in Ekpoma, Nigeria. *Annals of Rural and suburban Medicine* vol 2 (2) Pp 1-5.
7. Momoh, A.K.M., Okolie, R.I., Ohaju-Obodo, J., Samuel S. O., Ogiehor, S., Okolo, P.O., Momoh, A.A. (2009). Pattern of Bacterial Isolates and Antibigram in UTI. *Journal of applied and Basic Sciences* 5 (1): 14-20
8. Novick, R.P., Schlievert, P., Ruzin A. (2001). Pathogenicity and resistance islands of Staphylococci. *Microbes Infect.* 3:585.
9. Okonofua, F., Menakaya, U., Onemu, S., Omo-Aghoja, L.O., Staffan, B. (2005). A case control study of risk factors of male infertility in Nigeria. *Asian Journal Andrology* 7(4) 351-361.
10. Onemu, S.O., Ibeh, N. (2001). Studies on the significance of positive bacterial semen cultures in male infertility in Nigeria. *Int Fertile Women Med.* 46:210-214.
11. Smith, A.L (1976). Staphylococcus In: Smith, A.L. (ed). Microbiology and Pathology. 11<sup>th</sup> ed. Saint Louis. CV Mosby Company. Pp 203. 203

7/10/2011