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Research Paper

A Case of Postmenopausal Pyometra caused by *Streptococcus pseudoporcinus*- Case Report

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ABSTRACT: *Streptococcus pseudoporcinus is a facultative Gram-positive cocci characterized by a large zone of beta-hemolysis and is an uncommon human pathogen. We report a postmenopausal case of pyometra with purulent fluid showing the growth of Strep. pseudoporcinus, a beta-hemolytic Streptococcus not agglutinating with any of the group antisera and was further subjected to identification by Vitek-2 system.*
Keywords: *Beta-hemolysis, Gram-positive coccus, Pyometra, Streptococcus pseudoporcinus*

I. INTRODUCTION

Pyometra is a collection of purulent fluid within the uterine cavity. Though rare, it is an important gynaecological condition which needs urgent clinical intervention and is more common in elderly, postmenopausal women with concomitant medical conditions [1]. It was also associated with chorioamnionitis and pre term delivery but not reported from cases of neonatal sepsis. Pathogens considered common for pyometra are members of Enterobacteriaceae or anaerobes derived from the gastrointestinal tract[2]. This was a case of pyometra by *Streptococcus pseudoporcinus* in a postmenopausal woman.

II. CASE HISTORY

A 55yr old postmenopausal woman presented to Gynaecology OPD with complaints of yellowish white foul smelling discharge per vaginum associated with itching since 20 days. There is no history of mass per vaginum or per abdomen and pain abdomen. She had increased frequency of micturition not associated with burning. Bowel movements were regular. There was no history of dyspareunia, post menopausal bleeding, loss of weight, appetite, weight gain, cold or heat intolerance. She has three children and underwent tubectomy 30yrs back. Her general condition was normal and local examination showed an inflamed cervix with purulent discharge from internal os and uterine size could not be made out.

Ultrasound examination revealed a thin layer of fluid in endometrial cavity and purulent discharge via os. Suction and evacuation of pyometra was planned. An endocervical swab which was taken prior to the procedure was sent along with 5ml of purulent fluid to the department of Microbiology for investigation.

Direct gram stain of purulent fluid showed many pus cells with plenty of Gram positive cocci in chains. However, the endocervical swab did not show any pus cells. Both specimens were plated on to 5% Sheep blood agar, Chocolate agar, Mac Conkey's agar. After overnight incubation at 37°C, growth of a single organism was observed on sheep blood agar and chocolate agar, but there was no growth from endocervical swab. On Blood agar, the colonies exhibited a wide-zone of beta-hemolysis. Isolate from the primary culture of purulent fluid was identified as belonging to genus *Streptococcus* by colony appearance with a large zone of complete hemolysis on blood agar, Gram stain showing gram positive cocci in chains and a negative catalase test. The isolate did not react with any of the latex suspensions coated with Lancefield group A,B,C,D,F or G antisera and the isolate was subjected to Vitek2 identification system which has given it as *Streptococcus pseudoporcinus.* The antibiotic sensitivity testing was done on sheep blood agar. For interpretation of sensitivity, the zone size criteria given by CLSI for beta hemolytic Streptococci were used. The isolate was sensitive to penicillin, ampicillin, tetracycline, vancomycin, linezolid, piperacillin-tazobactam and intermediate to ciprofloxacin.

III. DISCUSSION

S. pseudoporcinus is a gram positive coccus occurring in chains and is usually characterized by a wide zone of beta-hemolysis. It was first described in 2006[3] using 16S rRNA gene sequencing from human strains isolated from the genitourinary tract of women. Though genetically unique, it shared certain biochemical characteristics with *S.porcinus* and hence the name *S.pseudoporcinus* [4] .

Few studies [4,5] state that they cross- reacted with Group B antisera and therefore human strains isolated from the genitourinary tract of women with colonies showing complete hemolysis and a positive *Streptococcus* group B latex agglutination require further testing [4]. Our finding of this strain not reacting with any of the group antisera was in agreement with Bekal S *et al*. [3] and Gaudreau C *et al*.[5]. As Streptococcal grouping in this case was negative, the isolate was identified as *Streptococcus pseudoporcinus* using commercial biochemical identification system, Vitek-2. The patient responded well with evacuation and a course of antibiotics.

IV. CONCLUSION

This case suggests that strains isolated from the genitourinary tract of women with colonies showing complete hemolysis and a positive or negative Streptococcal latex agglutination may require further testing. It may be an emerging genital tract pathogen and also a common organism colonizing the rectum and vagina of women [4].

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