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Septic abortus deu to Salmonella serotype Paratyphi B: A case report (*)

Salmonella serotip Paratyphi B'nin etken olduğu septik abortus: Olgu sunumu

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SUMMARY

We present a case of septic abortion at 16 weeks of gestation due to infection of Salmonella serotype Paratyphi B. The patient had curettage with the diagnosis of intrauterine ex. Placenta and fetus cultures grew: Salmonella serotype Paratyphi B. The patient was successfully treated with ciprofloxacin and discharged with total cure.

Key words: *Salmonella serotype Paratyphi B, septic abortion.*

INTRODUCTION

Strains of nontyphoidal *Salmonella* usually cause intestinal infection with diarrhea, fever and abdominal cramps. Less commonly, nontyphoidal *Salmonella* can cause localized infections (e.g., osteomyelitis or urinary tract infection) or bacteremia, especially in immunocompromised persons (1).

Although there are some reports on *Salmonella* spp. being the probable cause of septic abortion in pregnant women (2-5), as far as we know, this is the first reported septic abortion case caused by *Salmonella* serotype Paratyphi B.

CASE REPORT

A 31-year-old 16-week pregnant woman was admitted to emergency service with complaints of fever, nausea, vomiting, and abdominal pain. In physical examination of the patient; her general condition was good and she was conscious. Her blood pressure was 90/60 mmHg, pulse was 118/min and fever was 39 °C. The patient was admitted to obstetric service with diagnosis of intrauterine ex.

The laboratory data on admission were as follows: hemoglobin 11,2g/dL, white blood cell count 8000/mm^3, blood glucose 87mg/dL, aspartate aminotransferase 28 IU, alanine aminotransferase 15 IU, and lactate dehydrogenase 404 IU.

Blood and urine cultures were negative. Microscopic examination of gram-stained cervical discharge specimen showed many erythrocytes, leukocytes, gram-negative bacilli and few gram-positive cocci in chains.

On the day after admission, unconsciousness, sleep tendency, high fever over 39 °C were seen. The patient's blood pressure was 60/30 mm/Hg. She was admitted to Anesthesia Intensive Care Unit with the diagnosis of septic shock. After making curettage under anesthesia, ciprofloxacin and clindamycin were given to the patient empirically.

Placental and fetal cultures yielded non-lactose fermenting colonies on Eosine Methylene Blue agar. Colonies were identified biochemically as *Salmonella* spp. with traditional media in tubes. The isolate was motile, indol negative, citrat positive, urease negative, lactose negative, H2S positive, tartrate negative and ONPG negative. Further confirmation was done by slide agglutination with spesific O (somatic) and H (flagellar) antisera (Denka Seiken, Japan) and the organism was identified as *Salmonella* serotype Paratyphi B. The isolate was sensitive to trimethoprim-sulphametoxasole, chloramphenicol, cefotaxime,

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ampicillin and ciprofloxacin. After the susceptibility testing result, clindamycin was stopped and the treatment was continued with ciprofloxacin.

After the third day, the patient had shortness of breath and cough. The patient was consulted with doubt of pulmonary embolism. Her blood gases were normal and pulmonary embolism was not found. She was recommended to receive oxygen treatment. On the seventh day of treatment, the patient was generally in good condition and had no fever, and discharged with recommendations.

DISCUSSION

Septic abortion is one of the leading causes of maternal mortality. The infection is most commonly endometritis but can progress to septicemia and septic shock. These patients present fever, abdominal tenderness, and uterine pain. The most important causative agents of septic abortion are *Escherichia coli* and other aerobic, enteric, gram-negative rods, group B beta-haemolytic streptococci, anaerobic streptococci, *Bacteroides* spp, staphylococci and microaerophilic bacteria which are the members of endogenous vaginal flora (6, 7). *Salmonella* spp. rarely cause transplacental infections (2-5). However, to the best of our knowledge, *Salmonella* serotype Paratyphi B causing septic abortion has not been reported so far.

Salmonella enterocolitis might cause septic abortion proceeding to septic shock in pregnant women (3). In the present case, although the patient had gastrointestinal symptoms, since stool culture was not requested, intestinal salmonellosis was not proved. Smears from cervix for gram stain and aerobic and anaerobic cultures of endocervix should be taken from patient. Also placental and fetal cultures should be requested. In this case, although blood culture was negative, the *Salmonella* serotype Paratyphi B was isolated from the placental culture.

In conclusion, herewith we reported the first case of septic abortus due to *Salmonella* serotype Paratyphi B. In regions where the *Salmonella* infections are endemic such as Turkey (8, 9), *Salmonella* spp. should be taken into consideration in the cases of extra intestinal infections. It is well known that rigorous hand and kitchen hygiene are very important in prevention of salmonellosis. So, pregnant women should be informed about this kind of preventable infections and the prevention methods.

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