

## **A Case of *Salmonella typhi* Infection Leading to Miscarriage**

Sir,

Typhoid fever is a major public health problem in developing countries. *Salmonella typhi* may be a cause of significant morbidity and mortality in both the mother and the fetus. Cases of vertical transmission have been reported from India.<sup>[1,2]</sup> Pregnant women are at an increased risk for getting food-borne infections because of the hormonal changes that suppress immunity.<sup>[3]</sup> *Salmonella typhi* can cross the placenta causing miscarriage, stillbirth or premature labor. We report a case of a pregnant woman who was admitted with miscarriage and subsequently isolated *Salmonella typhi* in her high vaginal swab. She was a 27-year-old primigravida in her 6<sup>th</sup> week of gestation and presented with bleeding per vagina for few hours. The patient was a non-smoker, with no history of intake of any drugs/alcohol. Her menstrual history was normal. Pregnancy had been confirmed earlier with transvaginal ultrasonogram. Ultrasonography suggested incomplete abortion and dilation and curettage was performed. Investigations carried out for peripheral blood smear, urine analysis, blood sugar levels, TORCH serology, thyroid profile and anti-nuclear antibodies (ANA) were within normal limits. Her urine culture and

blood culture were sterile. Widal test was reactive up to a dilution of 1:320 for *Salmonella typhi* antigens (TO). A high vaginal swab collected under aseptic conditions grew *Salmonella typhi*, suggesting a probable transplacental leakage secondary to bacteremia. The patient gave a history of fever 1 month back for which she was treated with some antibiotics by the local physician, details of which were not known. In the absence of any other evidences of spontaneous miscarriage, Salmonellosis can be presumed to be the most likely cause. According to Brion *et al.*, *Salmonella typhi* should be considered in a pregnant woman with fever.<sup>[4]</sup> Hicks and French reported a high rate (65–85%) of abortion or premature labor with *Salmonella typhi*.<sup>[5]</sup>

However, the major limitations of this case were that products of conception could not be subjected to culture and the inability to isolate *Salmonella* from the blood or stool samples, which could have been due to prior antibiotic treatment. We conclude that in pregnant woman with high-grade fever, the possibility of Salmonellosis should be considered to prevent fetal loss. This is especially true in endemic areas.

### Kaur Ravneet, Barman Purabi<sup>1</sup>

Super Religare Laboratories, Fortis Hospital, Noida, Uttar Pradesh, <sup>1</sup>Fortis Fit Lt Rajan Dhall Hospital, Vasant Kunj, New Delhi, India.

**Address for correspondence:** Dr. Purabi Barman,  
E-mail: purabi.barman@gmail.com

#### REFERENCES

1. Raveendran R, Wattal C, Sharma A, Kler N, Garg P, Gujral K, *et al.* Vertical transmission of *Salmonella paratyphi A*. Indian J Pediatr 2007; 74:784-6.
2. Mohanty S, Gaiind R, Sehgal R, Chellani H, Deb M. Neonatal sepsis due to *Salmonella Typhi* and Paratyphi A. J Infect Dev ctries 2009;3:633-8.
3. Smith JL. Foodborne infections during pregnancy. J Food Prot 1999; 62:818-29.
4. Gluck B, Ramin KD, Ramin SM. *Salmonella typhi* and Pregnancy: A Case Report. Infect Dis Obstet Gynecol 1994;2:186-9.
5. Hicks HT, French H. Typhoid fever and pregnancy with special reference to foetal infection. Lancet 1905;1:1491-3.

#### Access this article online

##### Quick Response Code:



Website:  
www.jlponline.org

DOI:  
10.4103/0974-2727.78574