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Case Report

A case of strongyloidiasis in pregnancy

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ABSTRACT

Helminthic infections such as *Strongyloides stercoralis* occurs commonly in immunocompromised states. However, they can rarely occur in normal individuals also. A 23 year old multigravida presented at 39 weeks gestation with watery diarrhoea. She was evaluated and diagnosed of strongyloidiasis. Medical management was given and pregnancy outcome was successful. This case is reported because strongyloidiasis is a rare and underreported occurrence in pregnancy, which can occasionally be fatal.

Keywords: Antiparasitic agents, Helminthic infection, Infectious diseases, Pregnancy, Strongyloidiasis

INTRODUCTION

Strongyloides stercoralis infects an estimated 30-100 million people, with a distribution throughout tropical and subtropical areas. Prevalence in rural areas of south-east Asia is estimated to reach 20%.[1] However strongyloidiasis infection is underestimated and often ignored by the medical community.[2,3]

CASE REPORT

A 23 year old street- dweller, G2P1L1 with 39 weeks' gestation was admitted for safe confinement in view of previous lower segment caesarean section (LSCS) with unsure dates and poor antenatal care.

Examination revealed normal temperature, pulse and blood pressure, unremarkable cardiovascular and respiratory systems. On obstetric examination, the uterus was full-term, with cephalic presentation with regular foetal heart sounds, no uterine activity, healthy Pfannenstiel scar and no scar tenderness. On vaginal examination, cervix was 1 cm dilated with intact membranes and adequate pelvis.

Patient gave history of four to five episodes of watery diarrhoea since the last 2-3 days, for which stool examination was done; which did not show blood, mucus, pus cells, red cells, epithelial cells or macrophages, but, surprisingly, revealed larvae of *Strongyloides stercoralis*.

Patient also gave history of persistent cough. She had been previously diagnosed as a case of bronchial asthma, but was non-compliant to medication. Fresh opinion of chest physician was sought and metered dose inhalers of bronchodilator agents (fluticasone propionate 250 mcg, salmeterol 25 mcg/1puff) were restarted. Sputum examination was negative for acid fast bacilli and culture showed no growth. To rule out hyperinfection syndrome, sputum sample was examined but did not demonstrate larvae of *Strongyloides stercoralis*. Oral ivermectin 12 mg was given as a single stat dose.

Patient's diarrhoea settled and she went into spontaneous labour 3 days after admission. She underwent LSCS for

thick meconium stained amniotic fluid and delivered a healthy male of 2.550 kilograms. Repeat stool examination sent on the third postoperative day was within normal limits with no evidence of larvae of *strongyloides stercoralis* in stools. Postoperative course was uneventful.

DISCUSSION

The ability to cause "autoinfection", multiply and complete its life cycle within humans, gives it a unique position among helminths. [1]

Though commonly reported in relation to immunosuppressed states like HIV infection, HTLV infection and corticosteroid therapy, it can occur in previously healthy individuals also.[4] While asymptomatic gastrointestinal infection is the most common phenomenon, many reports of fatal and severe complications such as intestinal obstruction have been reported, even in unsuspected patients.[5,6] Commonly reported pulmonary co-morbidities include bronchial asthma, hypersensitivity pneumonitis, pulmonary eosinophilia and bronchiectasis, of which this patient had bronchial asthma, though in remission.[4,7]

There are many techniques available to improve the detection of larvae of *Strongyloides stercoralis* like Baerman technique or koga agar plate culture but the stool routine microscopy still remains the method of diagnosis in most of the settings, as was done in this case.[8]

While there is paucity of literature regarding strongyloidiasis in pregnancy, a few studies have reported the prevalence of parasitic infections among pregnant women by stool examination.[9] Though an association of low birth weight has been suggested with parasitic zoonoses, it has not been completely established.[10] Ivermectin, a macrocyclic lactone antibiotic is the most effective agent for management of this infection.[4] Though it is a potentially foetotoxic and embryotoxic agent, previous reports of its successful use in pregnancy with no adverse feto-maternal effects exist.[11]

Postnatal resolution of excretion of strongyloides in the stools was an expected phenomenon, in coherence with a recently reported prospective study.[12]

Strongyloidiasis in pregnancy cannot be taken lightly, because mortalities are still being reported.[13]

CONCLUSION

To conclude, the diagnosis in this patient was a purely coincidental one, while requesting a routine stool examination. Strongyloidiasis in pregnancy is a hithertho underreported entity, and it is recommended that all such occurrences be reported. Prospective studies are required in this regard, with the ultimate goal of improving maternal and foetal outcomes.

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