ISSN- O: 2458 - 868X, ISSN–P: 2458 – 8687
National Library of Medicine - ID: 101731606

International Journal of Medical Science and Innovative Research (IJMSIR)
IJMSIR : A Medical Publication Hub
Available Online at: www.ijmsir.com
Volume – 6, Issue – 5, September – 2021 , Page No. : 276 - 279

Urinary myiasis in a pregnant woman: An unusual diagnosis

[1]Maya Abhinav Choudhary, NKP Salve Institute of Medical Sciences and Research Centre and Lata Mangeshkar Hospital, Nagpur

[2]Sulabha Avinash Joshi, NKP Salve Institute of Medical Sciences and Research Centre and Lata Mangeshkar Hospital, Nagpur.

Corresponding Author: Sulabha Avinash Joshi, NKP Salve Institute of Medical Sciences and Research Centre and Lata Mangeshkar Hospital, Nagpur.

Citation this Article: Maya Abhinav Choudhary, Sulabha Avinash Joshi, "Urinary myiasis in a pregnant woman: An unusual diagnosis", IJMSIR- September - 2021, Vol – 6, Issue - 5, P. No. 276 – 279.

Type of Publication: Case Report

Conflicts of Interest: Nil

Abstract

Urinary myiasis is a rare condition. Urinary myiasis in pregnancy is not reported till date. Because of the rarity, there are no guidelines for management of urinary myiasis in pregnancy. Reporting a of urinary myiasis in pregnancy with good maternal and fetal outcome. This case is being reported because of its extreme rarity. We report a case of 25 years old pregnant patient who presented to us, at our tertiary health care centre, located in central India with complaints of passage of worms in urine. After all investigations, it was found to be larvae of Clogmia albipunctata (Diptera: Psychodidae). The patient developed PPROM and underwent LSCS at 33 weeks of gestation. We reviewed reported cases of urinary myiasis and discuss present case of urinary myiasis in a pregnant patient as it is first of its kind.

Keywords: Urinary myiasis, pregnant, clogmia albipunctata, worms

Introduction

The term myiasis was coined by an English entomologist, Fredrick William Hope, in 1840. Myiasis is rooted from a Greek word "Miya" which means initial .Myiasis is the infestation of vertebrate animals by dipterous larva, which feed on hosts dead or living tissue, liquid body substances or ingested food (8-1). Poor hygiene and low socio-economic status are the most important risk factors for acquiring myiasis. Clinically myiasis may be classified according to part of the body tissue invaded. Cutaneous myiasis is the commonest type. Body cavity myiasis; nasopharyngeal, ocular, aural and the gastrointestinal tract urogenital system are less common.Urinary myiasis is uncommon in human, because of protection form cloths and inaccessibility of genital area to flies, thus preventing flies from laying eggs (1-2). There are very few cases of urinary myiasis in females reported in literature and till date literature search has showed only one reported case of urinary myiasis during pregnancy(3).

We report a case of women with urinary myiasis where diagnosis was missed by her treating obstetrician and patient was considered as malingerer as it was difficult to believe her symptom. patient was diagnosed at our institute at 24 weeks gestation.Patient had

preterm PROM at 32 weeks , managed for it as per hospital protocol and delivered by LSCS at 33 weeks. Mother and baby are doing well. This report is being published because of its rarity, challenge in diagnosis and management because of paucity of literature on management of urinary myiasis during pregnancy

Case report

A 25 years old housewife, primi gravida, residing in urban area, belonging to upper lower socio- economic class was first seen at ANC OPD of our tertiaryhealth care centre located in central India. Patient was married since 2 years andwas 24 weeks by gestation. Patient came with the complaints of passing worms in urine since 2 months. Patient gave similar history of passing worms in urine after marriage for 3 months which had subsided after taking ayurvedic treatment. Patient was asymptomatic afterwards and then started passing worms during antenatal period since 18 weeks of gestation. In the previous 2 months patient had visited number of doctors for the same complained but cognizance was not given to her complaint as her repeated urine examination did not reveal any abnormality.The frequency of passing worms was 2-3 worms per day and there was no fixed time of passage of worms.. The patient had no other associated complaints. There was no history of fever, burning micturition, haematuria, dysuria, pruritus or rash. No history of any other chronic illness. There was no history of urologic instrumentation. Her personal hygiene was well maintained. On physical examination, patient was healthy and vital parameters were normal. Systemicexamination revealed no abnormality. There was no rash or scratch marks on perineum. On per speculum examination, cervix and vagina were healthy.Laboratory investigations revealed no abnormality. Her post glucose blood sugar was with in normal limits and serology for HIV, HBsAg and Syphilis were negative. Urine microscopy was normal and urine culture and sensitivity revealed no growth. Ultrasonography of abdomen and pelvis revealed no abnormality.MRI pelvis was done which revealed no abnormality. patient was asked to collect urine next day and bring the sample for examination. Next day patient brought the collected urine which showed worms in urine . The worms were small slender, motile, dark coloured. Patient's urine sample with worm was sent to zoology department, Institute of science, Nagpur where it was identified as larva of "Clogmia Albipunctata" .we had never come across the case of this kind, literature was reviewed, there was only one reported case of urinary myiasis in pregnancy. Available literature revealed that the larva may cause necrosis, ulceration and damage the bladder wall. Hence, cystoscopy was done, which showed larva within the bladder but the bladder wall was normal. For urinary myiasis in non pregnant patients, The recommended drug for treatment is ivermectin (3) which is a category C drug. Considering the pregnancy, patient was counselled accordingly. It was decided to closely follow the patient till delivery and administer ivermectin after delivery. Fortunately, patient stopped passing larva after cystoscopy. The patient presented with PPROM at 32 weeks of gestation. She was given erythromycin and treated according to the hospital protocol for PPROM. She underwent LSCS at 33 weeks of gestation in view of severe oligohydramnios with PPROM and delivered a male child weighing 1.8 kg with good APGAR score. At present after 6 weeks

postpartum, mother and baby are healthy and doing well.

Discussion

Adult C. albipunctata are only nuisance pests, very poor flyers and cannot travel far from their pupation site. Their dead form may disintegrate to form potential allergen (4). They have been also incriminated as potential mechanical vectors of some bacterial pathogens and were responsible for nosocomial infections .Clogmia albipunctata larvae were reported as cause of cutaneous myiasis(1),nasopharyngeal myiasis(5), intestinal myiasis (6), and urinary myiasis (5). The incidence of myiasis may be correlated with existing level of sanitation, the density of prevailing fly population and the economic status of the individual. Old or sick people, mentally retarded patients, diabetes, immunodeficiency, precarious hygiene practices and drug addicts are especially prone (6). Urinary myiasis may occur while humans urinate in unsanitary toilets or at night in warm weather while people (usually females) sleeping without covering. Urogenital discharges, or soiled or unbathed pubic area may attract fly oviposition around the external genitalia and urethral orifices, then hatched larvae may enter the bladder and pass through urethra and produce symptoms (7). There is only one reported cases of urinary myiasis till date in a pregnant woman, though there are few case report on vulval myiasis in pregnancy (8). All other reported cases are non pregnant and treated by oral administration of category C drug, Ivermectin. Ivermectin is semisynthetic macrocyclic lactone drug with anti-helminthic activity. Nowadays, it is recommended as an important alternative for treatment of scabies, demodicidosis, head lice, and myiasis. Single some bacterial pathogens and were responsible for nosocomial infections (4). Clogmia albipunctata larvae were reported as cause of nasopharyngeal myiasis (5), intestinal myiasis (6), and urinary myiasis (4).The incidence of myiasis may be correlated with existing level of sanitation, the density of prevailing fly population and the economic status of the individual. Old or sick people, mentally retarded patients, diabetes, immunodeficiency precarious hygiene practices and drug addicts are especially prone (9).Ivermectin is semisynthetic macrocyclic lactone drug with anti-helminthic activity. Single dose of 200ug/Kg is recommended (4). In this patient there was a dilemma about administration of ivermectin. The patient stopped passing worms after cystoscopy probably as a result of bladder irrigation during cystoscopy. The present case reflects that urinary myiasis is to be included in differential diagnosis whenever a patient complaints of passing worms in urine. At present, there is no literature on treatment for urinary myiasis in pregnant women.

Conclusion

Whenever a patient has unusual symptoms , cognizance should be given to the symptoms and if a patient gives history of passage of worms in urine, differential diagnosis of urinary myiasis to be entertained and treatment be individualised as there are no fixed protocols for such rare cases

References

1. Kerri Robbins , Amor Khachemoune, Cutaneous myiasis: a review of the common types of myiasis Int J Dermatol. 2010 Oct;49(10):1092-8. doi: 10.1111/j.1365-4632.2010.04577
2. Rasti S, Dehghani R, KHALEDI HN, TAKHTFIROOZEH SM, CHIMEHI E.

Uncommon Human Urinary Tract Myiasis Due to Psychoda Sp . Larvae, Kashan, Iran: A Case Report. Iran J Parasitol. 2016;11(3):417–21.

3. D Hjaija , S S Sawalha , Z S Amr A Katbeh-Bader , R A H Hassoon Urinary Myiasis Caused by Clogmia albipunctata from the Palestinian Territories Bull Soc Pathol Exot 2018;111(3):148-151. doi: 10.3166/bspe-2018-0037.
4. El-dib NA, wedgan Mohamed Abd EI Wahab, Hamdy DA, Ali MI. Case Report of Human Urinary Myiasis Caused by Clogmia albipunctata (Diptera : Psychodidae) with Morphological Description of Larva and Pupa. J Arthropod-Borne Dis. 2017;11(December):533–8.
5. Mohammed N, Smith KG V. Nasopharyngeal myiasis in man caused by larvae of Clogmia (=Telmetoscopus) albipunctatus WillistonJournal of Vector Borne Diseases 51(September 2014):247–249.
6. Nadia Ali El-Diba, Mona Ibrahim Ali b, Doaa Ahmed Hamdy b,∗, Wegdan Mohamed Abd El Wahabb Human intestinal myiasis caused by Clogmia albipunctata larvae (Diptera: Psychodidae): First report in Egypt Journal of Infection and Public Health journa 13(2020)661-663
7. R. Shimpi, Darshan Patel, K. Raval ,Human urinary myiasis by Psychoda albipennis: A case report and review of literature ,Urol Case Rep, 2018 Nov; 21: 122–123
8. Mauro R. L. Passos, Renata Q. Varella, Rogério R. Tavares, Nero A. Barreto, Cláudio C. C. Santos, Vandira M. S. Pinheiro, Renato S. Bravo and Maurício H. L. Morelhi,Vulvar myiasis during pregnancy, Infect Dis Obstet Gynecol 2002;10:153–158
9. Abu Sayeed, Aftab Ahmed, S. C. Sharma, and S. A. Hasan, Ivermectin: A Novel Method of Treatment of Nasal and Nasopharyngeal Myiasis,Indian J Otolaryngol Head Neck Surgv.71(Suppl 3); 2019 Nov,PMC6848309