

Umbilical Myiasis – A Rare Case In Rohilkhand Region Of Uttar Pradesh

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Abstract: Myiasis is an infection of live mammalian tissue by the larval forms of dipteran flies, usually infects domestic and wild animal but human may be affected sometimes. Although adult cases have been reported, neonatal myiasis is a rare condition. Umbilical myiasis is very rare in newborns with few reported cases in the literature. [Pahuja M NJIRM 2016; 7(2):126-127]

Key Words: myiasis,umbilical,maggots.

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Introduction: Myiasis is defined as the invasion of live mammalian tissue by the larvae of dipteran flies which feed on the host's dead or living tissue, body fluids or ingested food, commonly seen in the tropics and subtropics.¹⁻³

Poor hygienic condition and low socioeconomic status are important predisposing factors for the development of myiasis. Warm and moist nature of umbilical stump may attract gravid female flies to lay eggs on it if a neonate is kept in an unhygienic and filthy environment. The accompanying omphalitis provides the required nutritive support for hatching of eggs and further development into the larval form.

Myiasis of the neonatal umbilicus is a rare disease with only a few reported cases in the literature. Other sites reported among neonates are ear, nasopharynx, periorbital region, vagina, skin and intestine.^{4,5}

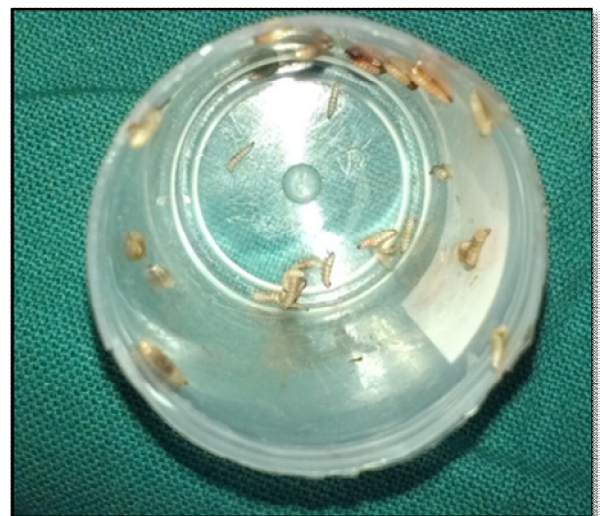
Case Report: This is a case of a male baby admitted to our hospital at day 4 of life ,with complaints of maggots in the umbilicus for 2 days and refusal to feed since one day.

Maggots were live crawling , white in colour associated with purulent discharge and erythema around the umbilicus. Baby was passing urine and stools normally. Baby was delivered by term vaginal delivery at PHC, umbilical cord cut by old blade , umbilical cord stump was about 6 cms long. Parents applied mustard oil on cord stump and covered it with cloth since birth.

The baby was admitted to NICU , with admission weight 1.76kg. on admission his vitals were stable, anterior fontanelle open and at level ,sucking reflex was good and sustained.

On examination, umbilicus was erythematous with two white coloured maggots coming in and out associated

with purulent discharge and rest of the wxamination was non contributory.



The baby was kept nil by mouth from Day 1 of admission. maintenance IV fluids given, Maintenance of Local hygiene and Broad spectrum antibiotics given intravenously for ten days(Cefotaxime and Amikacin) along with topical antibiotic ointment. Hemogram revealed following findings:

1. Hematocrit 52% WBC count of 21,800 cells/mm³.
2. C-reactive protein was positive immature to total neutrophil (I: T) ratio was 0.5.
3. Blood cultures did not show any microbial growth.
4. Local culture showed growth of staphylococcus aureus

Umbilicus was cleaned with betadiene ,ether applied dropwise ,some maggots came out themselves, rest of the maggots were pulled with help of forceps,total number of 35 maggots were removed,betadiene dressing done.

Following removal, the maggots were preserved in ethyl alcohol and sent to Department of Animal Sciences, MJP Rohilkhand University, Bareilly for species identification. The dead maggots were examined microscopically and were identified as *Chrysomya megacephala*.

USG was done next day to look for any residual maggots in umbilicus and none was found. The child was discharged after ten days on Breastfeeding.

Discussion: Myiasis is a disease of severely ill humans, living in poor sanitary conditions. Neonatal myiasis still rare disease, most of which were otic and oral. Umbilical myiasis is extremely rare.^{3,6} The other report of umbilical myiasis was a neonate in Argentina and Nepal. Human myiasis occurs when housefly lays eggs in warm, moist place (here umbilicus). Each female fly can lay around 500 eggs.⁷ Within a day, larvae hatch from these eggs. These larvae feed on dead and decaying organic material. They live for around 1 week, when, at the end of third instar, maggots crawl out to a cool, dryplace to transform into pupae, from which adult flies emerges. Umbilicus was the accidental but perfect site for the developing larvae.

Myiasis is common in people living in poor, unhygienic conditions, favouring breeding of flies.³ Reports of human myiasis have reduced with improving living standards. It is rare in newborn as they are completely covered with only face exposed, and are always indoor. Direct contact of newborn and fly does not occur. Occurrence of this rare disease is indicator of poor personal hygiene in our community.

There was history of raising livestock at home and open defecation, both of which could have been predisposing factors for myiasis.

Conclusion: Our Although umbilical myiasis in newborn is rare, but still in many of the under developed countries cases do occur and needs to be reported. With Indian government giving stress on building toilets and cleanliness, we may hope that human myiasis becomes a disease of yesteryears.

References:

1. Yuca K, Caksen H, Sakin YF, Yuca SA, Kiriş M, Yilmaz H, et al. Aural myiasis in children and literature review. *Tohoku J Exp Med* 2005;206: 125130.
2. Noutsis C and Millikan LE. Myiasis. *Dermatol Clin* 1994;12: 729736.
3. Ghosh T, Nayek K, Ghosh N and Ghosh MK. Umbilical myiasis in newborn. *Indian Pediatr* 2011;48:321323.
4. Thomas DB, Mangan RL. Oviposition and wound-visiting behaviour of the screwworm fly, *Cochliomyiahominivorax* (Diptera: Calliphoridae). *Ann Entomol Soc Am* 1989; **82**: 526–534.
5. Hammack L, Holt GG. Responses of gravid screwworm flies, *Cochliomyiahominivorax*, to whole wounds, wound fluid, and a standard blood attractant in olfactometer test. *J ChemEcol* 1983; **9**: 913–922. | [Article](#) |
6. Beeregowda YC, Kiran B, Gowda NY. Neonatal umbilical myiasis with sepsis. *Indian J Pediatr*.2010; **77**:1443–5.
7. Kumar V, Gupta SM. Umbilical Myiasis in neonate. *Paediatr Int Child Health*. 2012 Feb;**32**(1):58-9.

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