

CASE REPORT

MAGGOT INFESTATION IN CIRCUMCISION WOUND

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Male circumcision is an obligated practice in Muslims and Jews and it is one of the oldest operations performed all over the world. The safety of male circumcision depends on various factors including the who circumcised the boy, the type of anaesthesia used and associated complications. Circumcision in Pakistan is mainly done by traditional circumcisers and less by medically trained professionals. The various complications associated with circumcision include bleeding, excessive or inadequate removal of fore skin, injury to the glans and infection. Myiasis of circumcision wound is an extremely rare event. We report a case of Maggot infestation of circumcision wound after two weeks of circumcision in a 4 years old boy reported with swelling of phallus, pain and creeping of worms in the circumcision wound

Keywords: Maggot infestation; Circumcision wound; Obligated practice

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INTRODUCTION

Male circumcision is defined as the “cutting off” of the fore skin which is a double layered fold of skin and mucous membrane that covers the glans penis. Circumcision is being practiced mainly due to religious obligation by Muslims and Jews and sometimes on cultural and medical grounds. Around 27 million male circumcisions are done worldwide each year.^{1,2} Like other surgical procedures, circumcision being an operative procedure carries some complications; out of which the pain and bleeding from the wound are the most common. Rest of the complications include incomplete circumcision, infection, epidermal inclusion cysts, partial penile/glans amputation to complete penile amputation, urethrocuteaneous fistula, glandular adhesions (of remnant foreskin), acute ischemia which can lead to necrosis of penis, meatal stenosis, trapped/buried/concealed penis, retained plastibel device, fungal infection and Myiasis, Fournier’s gangrene and death.³

Though the circumcision in government hospitals is free in Pakistan but the scientific knowledge regarding safe circumcision is not much prevalent among population and only 5 to 10% of the boys are circumcised by qualified surgeons, the remainder visit to traditional circumcisers, barbers and untrained para medical staff who provide door site service; but such circumcision is associated with greater risk of infection and more severe complications on account of use of unsafe techniques, unsterilized instruments and improper care of circumcision wound, further such circumcisions are associated with higher cost and

slow healing as compared to the procedure done by qualified and trained surgeons.^{1,4}

Infestation of living vertebrate animals with Dipterous larvae is called Myiasis which is extremely rare after circumcision and very scarce literature is available on the subject. Extensive literature search on internet on the topic could not found any published literature on such topic from Pakistan, except only single case report from Bangladesh.⁵

We are reporting this extremely rare complication Myiasis of circumcision wound in a 4 years old boy who was circumcised by a traditional circumciser and was managed successfully.

CASE REPORT

A 4 years old boy was presented with history of circumcision two weeks back with complaints of swelling of phallus, pain and creeping of worms in the circumcision wound. The boy was circumcised by barber in the home of the patient without using standard aseptic techniques. Post circumcision the wound care was also not done properly. On 5th day after circumcision, the mother noticed swelling of the penis and the boy was also complaining of severe pain. On 10th post circumcision day besides swelling of penis, the mother also noticed creeping of worms inside the circumcision wound, for treatment the parents visited the local doctor but there was no improvement and boy was brought to our institute on 14th day after circumcision. General examination of the patient showed mildly anaemic and co-operative boy. The local examination revealed grossly swollen penis having a large gaping wound on the ventral surface and swollen and

oedematous scrotum. Closer examination of wound revealed multiple heads of maggots. Under general anaesthesia the wound was explored and found to contain large maggots hidden under the skin of penis and inside the scrotal skin residing in multiple pockets and a total of 41 maggots were removed. Figure-1,2. After removing the maggots and cleansing of the wound a dressing was applied over the wound. Re look examination after 48 hours showed reduced inflammation and swelling of penis and scrotum and there were no traces of maggots and the wound was repaired. Post-operative recovery was smooth and patient was discharged home on 4th day of admission. Follow up examination after two weeks showed healthy patient having healed scar of penis and normal scrotum and no traces of inflammation. Figure-3.



Figure-1



Figure-2



Figure-3

DISCUSSION

Historically circumcision is being practiced since ancient times and in actuality is evidenced in Egyptian mummies and in the Biblical agreement recorded in Old Testament.¹ Male circumcision is a widely practiced procedure in many countries and in Muslim majority countries like Pakistan it is considered an essential religious practice. The other indications for circumcision include ethnic and medical reasons. This religious obligation for circumcision contributes to large surgical load and constituting it important that circumcision should be performed safely with minimum possible risks and complications.⁴

As with any surgical procedure, local, systemic, and infectious complications after circumcision may result as a significant clinical problem. Complications after circumcision are possible and few of these might be minor and treated easily like bleeding and simple bacterial infection while others require additional surgery like inadequate removal of skin or urethrocuteaneous fistula.³ It has been observed that untrained circumcisers create more infectious and noninfectious complications when performing male circumcision than do well-trained providers, regardless of whether they are physicians, nurses, or traditional circumcisers. Local complications include staphylococcal and streptococcal infections, cellulitis, impetigo, pyoderma, necrotizing fasciitis, Fournier gangrene, glanular necrosis and scrotal abscess. Systemic infectious complications include bacteraemia, wound sepsis, and meningitis. Circumcision in neonate has also been associated with neonatal tetanus.⁶

Myiasis has been defined as an infestation in humans and vertebrate animals by larvae of insects which feeds themselves on living or dead tissues from the host or on fluid substances. Stanca Iris Iacob and

others in a meta-analysis compile the list of 47 specific complications arising from male circumcision and the complications range from superficial infection to Fournier gangrene and amputation of penis and death.³ They could found record of only one case of Myiasis as a complication of circumcision. We also searched the literature extensively for Myiasis in circumcision wound but could found only single case report from Bangladesh.⁵ The flies commonly causing the human infestation are by *Dermatobia hominis* (Human botfly) and *Cordylobia anthropophaga* (Tumbo fly/mango fly). These flies lay eggs containing larval stage on skin, natural orifices of immobile/dead person and on wounds.⁷

Myiasis after circumcision reported strikes as being a result of unsterilized instruments used during circumcision and use of improper technique in handling of the circumcision wound. In general, untrained circumcisers create more infectious and noninfectious complications when performing male circumcision than well-trained providers, regardless of whether they are physicians, nurses or traditional religious circumcisers.⁸ The purpose of reporting this extremely rare complication is to bring awareness in general public for safe circumcision and proper wound care after circumcision. The World Health Organization (WHO) recommends male circumcision should be carried out by at least a non-physician health care worker.⁴ Such task-sharing between surgeons or physicians and trained health providers is not yet established in Pakistan. The country therefore needs a public health strategy in which appropriate non-physician health care providers are trained to perform

circumcisions safely, using correct techniques and modern infection control practices during the procedure and after care of the wound.

CONCLUSION

Maggot infestation of circumcision wound is an extremely rare event and can be avoided by practice of circumcision performed by qualified and trained staff using proper techniques and better care of circumcision wound by modern infection controlling practices.

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