

Necrotizing Fasciitis Of The External Genitalia Following Traditional Circumcision

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ABSTRACT

Background: Necrotizing fasciitis of the external genitalia is not common in children, and is particularly unusual after circumcision.

Method: A case report of necrotizing fasciitis of the external genitalia in a one month old boy with discussion of relevant literature.

Result: A one-month-old boy presented with necrotizing fasciitis of the external genitalia following traditional circumcision. Treatment consisted of early administration of intravenous broad-spectrum antibiotics and debridement. Skin grafting was not necessary as the wound contracted and healed by secondary intention with minimal scarring.

Conclusion: Early institution of appropriate antibiotics and debridement should prevent morbidity and mortality from this uncommon condition.

KEY WORDS: Necrotizing fasciitis; External genitalia; Debridement; Antibiotics.

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INTRODUCTION

Necrotizing soft tissue infection is a fast spreading infection of the skin and subcutaneous tissue. It has a fulminant course and high mortality if left untreated^{1,2}. It commonly affects the extremities, lower trunk, perineum and external genitalia. However, it rarely follows male circumcision.

CASE REPORT

A one-month old boy presented with a one-week history of swelling of the right hemiscrotum associated with fever and refusal to feed. This followed circumcision done by a traditional barber one week earlier. The swelling gradually increased and broke down spontaneously after 2 days with discharge of serosanguinous fluid and rapid increase in size of the resulting wound. The circumcision wound failed to heal; rather, it continued to extend to involve the midshaft of the penis. There was no preceding history of trauma other than the trauma of circumcision. He had been delivered at home after a full term pregnancy supervised at a peripheral hospital. The mother received tetanus immunization

in pregnancy. There had not been prolonged labour or premature rupture of membranes. No medications were applied to the penis after circumcision.

Physical examination showed pallor, dehydration and a temperature of 38.3°C. The heart rate was 140/minute regular and the chest and abdominal examinations were normal. There was an ulcer (6cm in widest diameter) on the ventral aspect of the right hemiscrotum, extending across the midline just below the root of the penis; it discharged inoffensive, serosanguinous fluid; there was a well-demarcated skin edge and lots of necrotic tissue on the floor. The circumcision wound was also discharging pus and there was necrotic tissue extending from the corona to the midshaft (Figure 1). The inguinal lymph nodes were not enlarged.

The haemoglobin level was 12.6g/dl. Culture of a swab from the ulcer was sterile. Blood culture yielded no growth after 48 hours, though anaerobic culture was not done due to unavailability of appropriate facility at the time. The baby was rehydrated, intravenous cefuroxime 30mg/kg/12h, metronidazole 7.5mg/kg/8h, gentamicin 2.5mg/kg/8h were commenced and continued for 5 days. Debridement of the ulcer was performed removing all dead tissue. Subsequently, the wound was dressed with honey. Over the next two weeks, healthy granulation tissue formed, the wound contracted and healed by secondary intention with minimal scarring. The baby was discharged home after 2 weeks and has remained well.



Figure 1. Necrotizing fasciitis of the scrotum and penis

DISCUSSION

Necrotizing soft tissue infection or necrotizing fasciitis (NF) is a severe infection that affects diverse parts of the body^{3,4}. In one report of complications of circumcision in Zaria³, 4.2% had necrotizing fasciitis. In another report of necrotizing fasciitis of the external genitalia in neonates and infants², none followed circumcision.

Although there have been an increased awareness about the complications of traditional male circumcision in many developing countries, poverty frequently compels many parents to opt for traditional circumcision. The result of this has been a rise in complications following circumcision performed outside Hospital⁵.

Because of the rapidly progressive nature of necrotizing soft tissue infection, early recognition, prompt and adequate debridement, is necessary^{2,6}. This might need to be repeated if the infection progresses¹. Skin grafting may be necessary to cover resultant defects to avoid formation of an ugly scar. However, in this patient early administration of

broad-spectrum antibiotics and debridement of the wound, along with local wound care led to rapid wound contraction and healing.

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