Ind J Dermatol Venereol Leprol 1993; 59 : 84

# HAEMORRHAGIC CHICKENPOX WITH GANGRENE OF DIGITS

Arun C Inamadar, L H Bidri*, S S Jigjini, S J Nagalotimath

A $3\frac{1}{2}$ month female baby with chickenpox complicated by purpura fulminans and gangrene of the digits is reported.

**Key Words : Chickenpox, Purpura fulminans, Gangrene**

## Introduction

Chickenpox is a highly contagious and relatively common viral infection of children. The symptoms may be severe in adults, neonates and immunologically compromised patients.[1] A case of chickenpox induced purpura fulminans associated with gangrene of the digits in an infant is reported here for its rarity.

## Case Report

A $3\frac{1}{2}$ month female baby was admitted primarily for fever of 8 days duration. Child's antenatal and neonatal history was uneventful. Child had history of contact with chickenpox affected aunty 2 weeks ago. Child developed vesicular eruption surrounded by erythematous halo compatible with chickenpox on 2nd day of admission. Three days aft admission bluish discoloration an oedema of lower limbs were noticed more evident and severe on the rig foot. In the next 2 hours cyanosis an oedema of upper limb digits was als noticed. The oedematous areas wer tender and turned blackish later. Chi also developed ecchymotic rash ove extremities, gluteal region and trunk Systemic examination did not reveal an abnormalities except tachycardia. Ove the next 12 hours the left hand and le foot gradually resumed norma appearance, but the right lower extremit

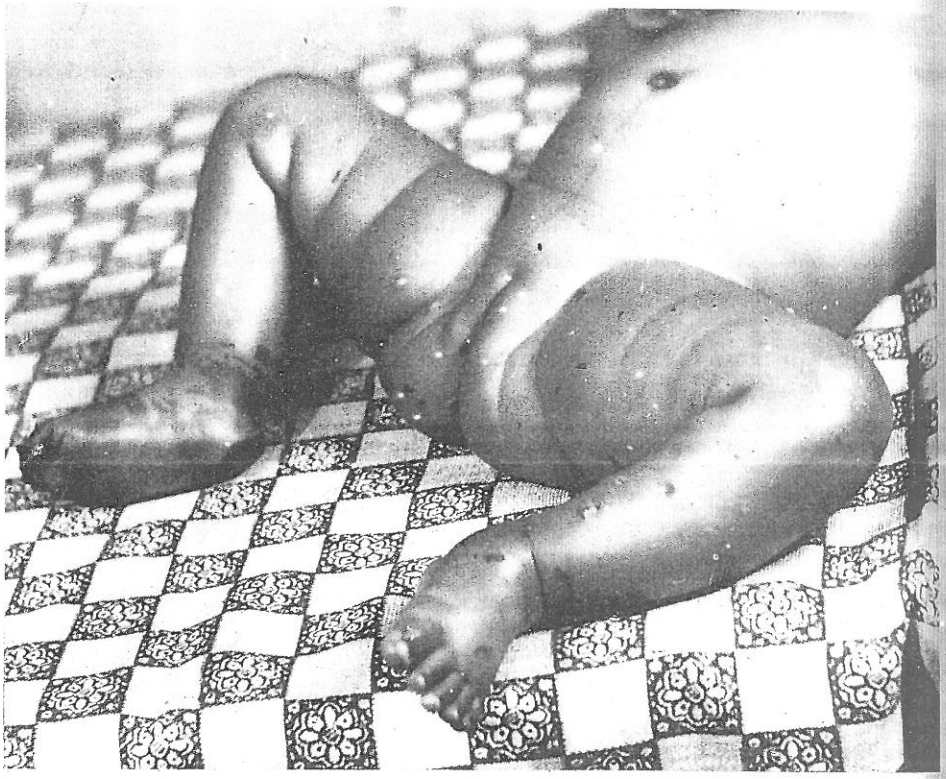

Fig. 1. Vesicular eruptions and ecchymotic lesions over extremities with gangrene of right foot toes

From the Departments of Dermatology, and Pathology, BLDEA's Medical College, Bijapur-586103; and Ashwini Children's Hospital,* Bijapur-586103, India.

Address correspondence to: Dr Arun C Inamadar

and right upper extremity digits remained grossly swollen. The changes persisted and all 5 toes of the right foot (Fig.1) and tip of digits of right hand became gangreneous.

Haematological investigations done on the day child developed oedema and cyanosis with ecchymotic rash showed thrombocytopenia (1,00,000 cells/mm$^3$), prolonged clotting time and prolonged prothrombin time. WBC count was 10600 cells/mm$^3$ with normal differential count. Cytodiagnostic test of vesicular base revealed typical multinucleated giant cells suggestive of viral aetiology. Fresh blood transfusion and IV administration of acyclovir (5mg/kg) at 8 hourly intervals for 5 days healed chickenpox lesions and arrested the fatal progression of the desease.

## Comments

The clinical findings in the present case were those of purpura fulminans following chickenpox. This condition has been reviwed by Horder.[2] Following typical chickenpox, symmetrical haemorrhagic lesions appear on the lower limbs and the process may combine to produce extensive necrosis of the skin and other tissues. Disseminated intravascular coagulation occurs resulting in low prothrombin and reduced amounts of V, VII, VIII and IX and the production of a thrombotic purpura. In the present case laboratory tests for coagulation profile gave indication of a generalized consumptive coagulopathy.

Wishik and Bullowa[3] catalogued the complications seen in 2534 cases of chickenpox between 1929 and 1933. One of these was a 3-year-old boy with mild varicella who developed discoloration and eventually gangrene of the digits. Venous thrombosis with bilateral digital gangrene in the absence of a generalized consumptive coagulopathy has been described following chickenpox in a 6-year-old child.[4]

Occationally HSV infection presents as varicella like eruption (disseminated HSV) that can cause confusion in diagnosis. But, a history of genital herpes in the mother, the presence of keratoconjunctivitis and typical herpetic oral lesions in HSV infections may be clinically helpful.[5] Present case with definite history of contact with chickenpox patient and with absence of any clinical involvement of eye or oral mucous membrane fits into varicella infection only.

To conclude, present case of chickenpox with severe complications like purpura fulminans and digital gangrene appears to be the youngest reported.

## References


1. Robinson TWE, Heath RB. Virus disease and the skin. New York : Churchil Livingstone, 1983;77 - 80.
2. Horder M. Purpura fulminans following varicella. Danish Medical Bulletin 1965;15:221.
3. Wishik SM, Bullowa JGM. Am J Child 1935;49:227 (Quoted in ref. 4)
4. Gyde OHB, Beater DL. Gangrene of digits after chichenpox. Br Med J 1970;4:284.
5. Atherton DJ, Rook A. The New born. In : Text Book of Dermatology (Rook A, Wilkinson DS, Ebling FJG, et al, eds), 4th edn. London: Blackwell Scientific, 1986; 259.