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# MENINGOCOCCAEMIA WITH GANGRENE

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A 2 1/2 year old boy of meningococcaemia with rare complications like gangrene of the digit, tip of the nose, and both helix is reported. Importance of timely suspicion and early intervention with antibiotic to change the fatal course of meningococcaemia is discussed.

**Key Words : Meningococcal infections, Purpura, Gangrene**

## Introduction

Meningococcaemia is an acute bacterial illness which may vary from a mild respiratory illness to fulminant septicaemia associated with purpuric eruption.[1] It is an important cause of childhood mortality and the best prospect for reducing mortality in the short term is improved treatment. A case of meningococcaemia with gangrene is reported.

## Case Report

A 2 1/2 old year boy with prodrome of upper respiratory infection followed by macular and purpuric rashes which developed on the second day of admission was referred to a dermatologist. Cutaneous examination revealed acral cyanosis, erythematous maculopapular rash over the trunk, purpuric lesions over the gluteal region, extremities, face, and scrotal skin (Fig. 1). Purpuric lesions had angulated outlines and at places were arranged in livedo reticularis pattern.

Except for tachycardia, other systems were within normal limits. Gram's stain smear revealed intracellular diplococci. Coagulation profile was normal except thrombocytopenia and leucocytosis.

Fig. 1. Purpuric and ecchymotic lesions over extremities and gluteal region

The child was given I V penicillin 5 LU, qds and supportive measures with a provisional diagnosis of meningococcaemia after withdrawing blood for culture. CSF cytochemistry was not attempted as there

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were no signs suggestive of meningitis. Culture grew *N. meningitidis* and confirmed the diagnosis. On fifth day the child developed central ulceration of purpuric lesions over gluteal region and gangrene of the right little finger, tip of the nose, and helix of both ears. With I V penicillin treatment for 10 days, lesions healed and gangrenous parts got autoamputated.

## Comments

Acute meningococcaemia develops when *N. meningitidis*, present in the upper respiratory tract, invades the blood stream. At increased risk for invasive disease are those individuals without prior exposure to organism, especially children under 5 years of age.[2] In the present case skin lesions seem to arise mainly from bacteria-induced vascular damage rather than disseminated intravascular coagulation (DIC), as *N. meningitidis* was demonstrable both by Gram's stain and culture with normal coagulation profile. Thrombocytopenia can be due to direct effect of bacterial agent o thrombocytes.[2] If DIC has a role, addition heparin therapy is a must. Complications lik gangrene encountered in the present cas are scarcely reported in the literature.

Toews and Bass[3] found that the typ of rash on admission to hospital ha prognostic significance; of 114 with macula papular, or petechial lesions, 3 died; but o 116 with a purpuric or ecchymotic rash, died. So progression of the rash ofte coincides with clinical deterioration.

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