

Noma neonatorum

Prathibha Anand Nayak,¹ Ullal Anand Nayak,¹ Vishal Khandelwal,² Anupam Gupta²

¹Department of Periodontics, Mahatma Gandhi Dental College, Jaipur, Rajasthan, India

²Private Practitioner, Indore, Madhya Pradesh, India

Correspondence to

Dr Prathibha Anand Nayak, drprathibha_an@yahoo.co.in

DESCRIPTION

Noma neonatorum is a rare gangrenous form of noma, which during its course, causes progressive and mutilating destruction of the soft tissues and the bone. It occurs in newborns at birth or during the first month of life. It is characterised by a gangrenous process involving mucocutaneous junctions of oral, nasal and anal area and occasionally, the eyelids and scrotum.¹ In low birthweight babies it is almost always quickly fatal.

A 25-day-old female infant reported with a suddenly developed small boil over the upper lip. The boil burst on fifth day and formed an ulcer with high-grade fever. The ulcer was involving upper lip and nose, because of which the patient had inability to suck. The infant was delivered full term, with birth weight of 1.8 kg.

On examination, gangrenous blackish lesion involving upper lip, alveolar mucosa, eyelids and lateral areas of nose. The patient appeared with high-grade fever, malnourished, debilitated, toxic and dehydrated. The pulse rate was 160 bpm, heart rate was 132/min and respiratory rate was 30 cycles/min. The respiratory system appeared clear and cardiovascular system appeared normal. No other developmental deformity was found. The case was provisionally diagnosed as noma neonatorum with septicaemia (figure 1). The patient was prescribed antipyretic and antibiotic (amoxicillin) drugs. Intravenous fluids and nasogastric tube for feeding was introduced.

On haematological investigation, haemoglobin was 22.4 g/dl, packed cell volume 69.2%, mean corpuscular volume 101 fl, platelet count was found to be 0.35 lakhs/mm³. The blood group was B positive. Peripheral smear showed normocytic normochromic, relative neutrophilia and decreased platelets count. RBC count was 6.76 millions/mm³, total lung capacity was 16 700 cells/mm³. Blood glucose was 52 mg/dl. HIV test was negative.

Swab test showed Gram negative bacilli. *Pseudomonas aeruginosa* organism was isolated. Antibiotic sensitivity test was performed which showed *P aeruginosa* sensitive to netilmicin, ofloxacin, ciprofloxacin, amikacin, cefoperazone and clindamycin. The organism was resistant to gentamycin, augmentin and lomefloxacin.

Based on the culture and sensitivity test, antibiotics were changed to intravenous netilmicin 50 mg intravenous in 100 ml injection, amikacin 15 mg intravenous in 1 ml injection, clindamycin 300 mg intravenous in 2 ml injection and topical clindamycin cream for next 7 days. Intravenous fluids and nasogastric tube feeding was continued. Platelets and fresh frozen plasma (350 ml) were transfused. Initial response to the treatment was that the body temperature returned to normal. By the seventh day of hospitalisation, overall health of



Figure 1 Infant suffering from noma.

the patient improved. Gangrenous lesions started drying out. Nasogastric tube was removed. Bottle feeding started with multivitamins. Oral antibiotics were given for 3 weeks. Local wound care was continued. Necrotic areas shed by 26th day from the face. The patient completely recovered with permanent loss of the nose and deformation of the upper lip (figure 2).



Figure 2 Post treatment healing.

To cite: Nayak PA, Nayak UA, Khandelwal V, et al. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2013-009912

Learning points

- ▶ Noma neonatorum is characterised by a gangrenous process involving mucocutaneous junctions of oral, nasal and anal area and occasionally, the eyelids and scrotum.
- ▶ Most patients with noma report until the disease is at an advanced stage.
- ▶ It is seen during the first few weeks of neonatal life in premature and low birthweight babies.
- ▶ It is usually associated with *Pseudomonas aeruginosa* and septicemia.

Contributors All the authors have contributed to the manuscript.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCE

- 1 Parikh TB, Nanavati RN, Udani RH. Noma neonatorum. *Indian J Pediatr* 2006;73:439–40.

Copyright 2013 BMJ Publishing Group. All rights reserved. For permission to reuse any of this content visit <http://group.bmj.com/group/rights-licensing/permissions>.
BMJ Case Report Fellows may re-use this article for personal use and teaching without any further permission.

Become a Fellow of BMJ Case Reports today and you can:

- ▶ Submit as many cases as you like
- ▶ Enjoy fast sympathetic peer review and rapid publication of accepted articles
- ▶ Access all the published articles
- ▶ Re-use any of the published material for personal use and teaching without further permission

For information on Institutional Fellowships contact consortiasales@bmjgroup.com

Visit casereports.bmj.com for more articles like this and to become a Fellow