

Invited Expert Commentary

Unraveling Noma in the Modern Age

David Allen Shaye ^(1,2,3)

¹Department of Otolaryngology, Division of Facial Plastic and Reconstructive Surgery, Massachusetts Eye and Ear, Harvard Medical School, Boston, Massachusetts, USA.

²Médecins Sans Frontières, Noma Children's Hospital, Sokoto, Nigeria

³Department of Surgery, University Teaching Hospital Kigali. Kigali, Rwanda

Keywords

Cancrum oris
Facial reconstruction
Necrotizing stomatitis,
Necrotizing gingivitis
Noma
Orofacial gangrene

Abstract

(David Allen Shaye is a leading expert in the reconstruction of mutilating defects caused by noma. In this invited commentary, he is sharing the wisdom and knowledge that he gained from his extensive work in Noma Children's hospital, Nigeria).

Management of noma patients is a surgical challenge not only because it occurs in low-income countries, but also because it is an infinitely complex, multi-faceted surgical problem. It is a peculiar amalgamation of oncologic, congenital, and traumatic facial defects. As there is no noma surgeon experienced in tackling all of these issues, noma lends itself to team-based care. The roots of noma are neither surgical, nor even medical, but a societal problem of the fair distribution of basic resources. Today, noma remains a stark reminder of our global failures, but tomorrow it could be the mark of a global triumph.

As surgeons we become familiar with death and disability; so it is the rare malady that shakes our stoic front. Noma is just this disease. A haunting gangrene of skin, muscle and bone, noma afflicts our most vulnerable population, namely the malnourished children of low-income countries. Survivors of noma are few, and they present to us a surgical challenge of the highest order.

In this (April 2024) issue of *Pediatric Surgery in Tropics*, Srinidhi and Raveenthiran have presented an outstanding assessment of this little-known disease, noma (cancrum oris, orofacial gangrene or necrotizing stomatitis).⁽¹⁾ This article

comprehensively reviews the history, microbiological profile, layperson and medical nomenclature, and surgical principles of the disease, in an open access format that maximizes its global reach. The existing evidence on noma is woven together into a thorough narrative, excellent for all levels of health-care professionals. For those interested in the psychosocial effects of noma that is easily lost in the medical literature, *'Restoring Dignity'* is a riveting documentary of noma patients set in northwest Nigeria.⁽²⁾

Management of noma patients is a surgical challenge not only because it occurs in low-income

countries, but also because it is an infinitely complex, multifaceted surgical problem. In my experience, noma is a peculiar amalgamation of oncologic, congenital, and traumatic facial defects. The substantial loss of tissue during acute noma is veiled when the patient presents years later. As noma survivors grow, their facial skeleton and soft tissues are distorted comparable to congenital facial clefts, and the dentate facial skeleton is altered like that of neglected trauma. As there is no noma surgeon experienced in tackling all of these issues, noma lends itself to team-based care. The time is ripe for an international surgical working group to describe and lay out the principles of acute noma treatment, noma surgery and anesthesia.

In 2023, the World Health Organization (WHO)⁽³⁾ recognized noma as a *neglected tropical disease*. This brings hope for an accelerated, integrated approach, particularly within the hardest hit continent of Africa. A global strategy including epidemiology, community health, and specialty care is needed. The review of risk factors shows us the many confounding variables that contribute to the unsolved nature of the disease. The hope to discover a single risk factor as a chokepoint for eradication remains elusive. However, with the common theme of noma being severe malnourishment and poverty, perhaps these focal points do not require a deeper understanding. The roots of noma are neither surgical, nor even medical, but a societal problem of the fair distribution of basic resources. Today, noma remains a stark reminder of our global failures, but tomorrow it could be the mark of a global triumph.

REFERENCES

- [1] Srinidhi R, Raveenthiran V. Noma (Cancrum oris). *Pediatr Surg Trop*. 2024 Apr-Jun; 1(2): 75-92.
- [2] Inediz (in collaboration with Doctors without Borders). Restoring Dignity. {Available from URL: www.restoring-dignity.com} (Accessed on 4 April, 2024).
- [3] World Health Organization. W.H.O officially recognizes noma as a neglected tropical disease. News item Dated 15 Dec, 2023. {Available from URL: www.who.int/news} (Accessed 4 April, 2024).

Address for communication: Dr David A. Shaye,
Email: david_shaye@meei.harvard.edu

© Authors; Distributed under Creative Commons CC-BY-NC-ND attribution 4.0 international license

Received 4 April 2024; Accepted 4 April 2024

Acknowledgements : None
Conflicts of Interest : None declared by authors
Source of Funding : None
Ethical concerns : None (Personal opinion)

Citation: Shaye DA. *Unraveling noma in the modern age*. *Pediatr Surg Trop* 2024; 1(2): 124-125.

