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Allergic Contact Dermatitis Due to Cervical Collar

Prasad Krishnan¹ and Grandhi Aditya¹

¹Department of Neurosurgery, National Neurosciences Centre, Calcutta, West Bengal, India

Address for correspondence Prasad Krishnan, MS, MCh Department of Neurosurgery, National Neurosciences Centre, 2nd Floor, Peerless Hospital Campus, 360, Panchasayar, Garia 700094, Kolkata, West Bengal, India, prasad.krishnan@rediffmail.com

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Abstract

Cervical collars are routinely applied in neurosurgical units following trauma or cervical spine operations. We describe a case of florid allergic contact dermatitis that developed as a complication following collar application in a postoperative patient.

Keywords: allergic contact dermatitis, Casal's collar, cervical collar, complications

A 30-year-old lady underwent an anterior cervical discectomy for a C5–C6 disc prolapse causing radiculopathy. Postoperatively, she was put on a Philadelphia collar and discharged 3 days following surgery. She presented 2 weeks later with an intensely pruritic, erythematous, sharply demarcated rash on the neck, lower part of the face, and upper part of the chest ([Fig. 1](#)). The rash resembled dermatitis seen in niacin (Vitamin B3) deficiency–Casal's collar. As she had no other features of pellagra and considering the localized nature and time frame in which the rash developed, allergic contact dermatitis was diagnosed. She was treated with removal of the collar and application of topical steroid ointments with which the lesion regressed completely in 3 weeks.

Allergic contact dermatitis is a type 4 delayed hypersensitivity response mediated by T lymphocytes when a patient's skin comes in contact with an allergen.¹ It is the commonest inflammatory disease of the skin and as in our case occurs more in women than in men.¹ Despite the fact that common complications seen due to cervical collar applications such as erythema, skin breakdown, and pressure ulcers have been reported to occur in 7 to 23% of adults,² these are neither something that the patients are counseled about nor an issue that surgeons usually bear in mind while treating patients. Webber-Jones et al³ have cautioned that areas of skin damage carry a risk of bloodstream infections. While some of these

complications can be prevented by the addition of extra padding⁴ at pressure points, allergic contact dermatitis as seen in our case has never before been reported in the literature and mandates doing away with the offending collar altogether.

Footnotes

Conflict of Interest None declared.

References

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Figures and Tables

Fig. 1



Clinical image of a patient with sharply demarcated, erythematous rash on the neck following application of a cervical collar for 2 weeks.