

Case Letter

Cervical Trophic Syndrome: A Distinct Clinical Entity?

To the Editor:

Samarin et al¹ reported a case of superficial cervical ulceration that was proposed to be unilateral ulcerations restricted to a dermatome, representing a new clinical variant in the spectrum of trigeminal trophic syndrome (TTS) termed *cervical trophic syndrome*. The patient was a cognitively impaired elderly woman with a superficial ulceration on the posterior aspect of the neck and a history of herpes zoster (HZ) infection of the affected dermatome.¹ We report a similar case of a patient with underlying spinal pathology and discuss these cases as a spectrum between TTS and notalgia paresthetica whereby lesions of peripheral spinal nerves may lead to unilateral ulcerations restricted to a dermatome.

A 66-year-old man with a history of mental retardation and end-stage renal disease presented with an ulceration on the posterior aspect of the neck of approximately 9 months' duration. Cervical and thoracic radiographs showed levoscoliosis and moderate degenerative disc disease as well as facet arthropathy in the cervical spine. His history was negative for HZ infection. The patient admitted to a chronic inability to control scratching of the area. On examination a 15×15-cm, unilateral, shallow ulceration was seen, with sharp midline demarcation involving the C3-C5 dermatomes (Figure 1). He underwent debridement with general anesthesia, daily dressing changes, and a renal dose of gabapentin 100 mg twice daily. During treatment, 2 biopsies were unremarkable and only showed ulceration and fibrosis. He continued to make progress over the next 2 months with successive in-office debridement and wound care therapy (Figure 2). Unfortunately, he died of an unrelated cause during follow-up.

Our patient's history and presentation are best explained as a variant of notalgia paresthetica complicated by self-mutilation. Notalgia paresthetica typically presents as unilateral pruritus over the scapular

border of the upper back. The classic distribution of pruritus of the T2-T6 dermatomes is strongly associated with degenerative spinal changes; however, degeneration solely confined to cervical segments has been described in etiologic investigations of notalgia



Figure 1. Unilateral, well-demarcated, shallow ulceration (15×15 cm) involving the C3-C5 dermatomes (A and B).

Dr. Fischer was from and Drs. Adelson and Garcia are from the Department of Dermatology, University of Oklahoma, Oklahoma City. Dr. Fischer currently is from Mercy Clinic Dermatology North Meridian, Oklahoma City.

The authors report no conflict of interest.

Correspondence: Alison A. Fischer, MD (agalatian@gmail.com).



Figure 2. After 2 months of gabapentin and wound care therapy, the patient's ulceration began to heal.

paresthetica.^{2,3} Our case and the case reported by Samarin et al¹ involved the C3-C5 dermatomes. Although cases of pruritus confined to the neck also have been previously classified as brachioradial pruritus, the cases described by Wallengren and Sundler⁴ were proposed to have predisposing spinal disease as well as a component of solar-induced nerve injury. Because cervical ulceration restricted to a dermatome was present in the case described by Samarin et al,¹ it appeared to be associated with antecedent HZ infection and was suggested to represent a new clinical syndrome or variant of TTS. Although classically due to mechanical ablation of the trigeminal ganglion, TTS also may be secondary to vascular or viral insult to the trigeminal ganglion or nerve.^{5,6} The etiology typically is presumed to be secondary to self-mutilation due to underlying paresthesia or dysesthesia. The trigeminal

ganglion only is unique in size and location when compared to spinal dorsal root ganglia.

These 2 cases suggest that any insult to any sensory nerve, whether compression related, viral, or vascular, can produce trophic ulcerations secondary to pruritus or self-mutilation. It is likely that TTS is more commonly encountered than other spinal trophic lesions due to the size and location of the trigeminal nerve and ganglion.

Ulceration is not a typical feature of notalgia paresthetica or brachioradial pruritus; a history of self-mutilation due to underlying paresthesia is consistent with the diagnosis. These 2 cases represent notalgia paresthetica and postherpetic pruritus in patients with extreme self-mutilative responses to previously described neuropathic itch syndromes. Spinal trophic syndromes likely are a spectrum of disorders in continuum with TTS.

Alison A. Fischer, MD
David M. Adelson, MD
Carlos Garcia, MD

REFERENCES

1. Samarin FM, Ko CJ, Bologna JL. Cervical trophic syndrome. *J Am Acad Dermatol.* 2010;63:724-725.
2. Savk E, Savk O, Bolukbasi O, et al. Notalgia paresthetica: a study on pathogenesis. *Int J Dermatol.* 2000;39:754-759.
3. Savk O, Savk E. Investigation of spinal pathology in notalgia paresthetica. *J Am Acad Dermatol.* 2005;52:1085-1087.
4. Wallengren J, Sundler F. Brachioradial pruritus is associated with a reduction in cutaneous innervation that normalizes during the symptom-free remissions. *J Am Acad Dermatol.* 2005;52:142-145.
5. Sadeghi P, Papay FA, Vidimos AT. Trigeminal trophic syndrome—report of four cases and review of the literature. *Dermatol Surg.* 2004;30:807-812.
6. Kavanagh GM, Tidman MJ, McLaren KM, et al. The trigeminal trophic syndrome: an under-recognized complication. *Clin Exp Dermatol.* 1996;21:299-301.