

**Clinical Image**

Open Access, Volume 3

**A case of generalized tetanus with classical 'risus sardonius'****Mayank Agarwal<sup>1\*</sup>; Shridhar Pattar<sup>2</sup>; Monika Pathania<sup>3</sup>; Minakshi Dhar<sup>4</sup>**<sup>1</sup>Senior Resident, Department of Internal Medicine, AIIMS Rishikesh, India.<sup>2</sup>Junior Resident, Department of Internal Medicine, AIIMS Rishikesh, India.<sup>3</sup>Associate Professor, Department of Internal Medicine, AIIMS Rishikesh, India.<sup>4</sup>Additional Professor and Head, Department of Internal Medicine, AIIMS Rishikesh, India.**\*Corresponding Author: Mayank Agarwal**

Senior Resident, Department of Internal Medicine, All India Institute of Medical Sciences, Rishikesh-249203, Uttarakhand, India.

Email: m.agarwal95@gmail.com

Received: Aug 24, 2022

Accepted: Sep 13, 2022

Published: Sep 20, 2022

Archived: www.jcimcr.org

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DOI: www.doi.org/10.52768/2766-7820/2064

**Description**

A 50-year-old farmer presented with dysphagia and chest tightness following foot trauma for the last three days. On examination, he had nuchal rigidity, trismus, and hypertonia. A characteristic 'Risus Sardonius' face was noticed (Figure 1). The patient also developed generalized painful spasms and respiratory distress with stridor, following which an urgent tracheostomy was done. Based on clinical presentation, a clinical diagnosis of generalized tetanus was considered. He was given 0.5 ml intramuscular tetanus toxoid and 3000 IU of human tetanus immunoglobulin.

Risus sardonius is described as an apparent grin due to sustained contraction of the facial muscles causing retraction of the angle of mouth and eyebrows to rise, producing an evil-looking smile. It is a Latin term derived from its resemblance with the facial expressions of the ancient people from the Mediterranean island of Sardinia [1]. It occurs due to the inhibitory effect of tetanospasmin on neurotransmitters in the synaptic cleft. Strychnine poisoning mimics tetanus and can have a similar presentation [2].

Although tetanus is rare and mostly limited to neonates, it remains a public health problem in developing countries. The elderly are particularly susceptible because of declining immunity and in adequate vaccination. According to the Expert panel guidelines in India, for adults (18-64 years) who have completed their primary vaccination schedule, a booster dose of tetanus vaccine is indicated once every ten years till the age of 65. For unvaccinated adults, two doses are administered at least four weeks apart, and the third dose is given 6-12 months later [3].



**Figure 1:** RISUS SARDONICUS - an apparent grin due to spasm of facial muscles causing eyebrows to rise and angle of mouth to retract.

**Citation:** Agarwal M, Pattar S, Pathania M, Dhar M. A case of generalized tetanus with classical 'risus sardonicus'. *J Clin Images Med Case Rep.* 2022; 3(9): 2064.

#### Learning points:

- The diagnosis of tetanus should be clinical, and we should not wait for lab confirmation as it can delay the initiation of treatment which can be lifesaving in such cases.
- Tetanus being a vaccine preventable disease, this case highlights the importance of immunization even after trivial injuries specially in elderly population in rural areas.

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