

**Subcutaneous Face and Neck Surgical Emphysema Secondary to Presumed Spider Bite**

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**Case report**

We report a case of a 35 year old gentleman who presented to us from a secondary hospital with two day history of swelling of right side of face after having been bitten by a small grey looking jumping spider. He could not pinpoint to which part of the face he was bitten. There was no evidence of the original bite. Past medical history was unremarkable and didn't report any allergies. At a secondary hospital, he had given hydrocortisone 200mg, promethazine 25mg, Cloxacillin and gentamycin on assumption of an allergic reaction and he carried a differential diagnosis of orbital cellulitis.

On examination, he was afebrile and had a blood pressure of 151/79 and a pulse rate of 56. He had swollen right side of face with palpable surgical emphysema which extended to the neck. There was no sweating of the face. The rest of head and neck including Ear Nose and Throat and dental examination were normal

He had a white cell count of  $12.5 \times 10^9 / l$  and C-reactive protein of 11.8. Facial and lateral neck x-rays done at the secondary hospital (Figure 1) showed extensive subcutaneous surgical emphysema. Chest x-ray was normal.

The patient was admitted to our unit on antibiotic cover of Penicillin and Flagyl. As far as we are aware, there are no anti-spider venom preparations available here. Over the next 48 hours, the swelling and surgical emphysema had subsided and patient was discharged. He defaulted follow-up two weeks later.



Figure 1.

## Discussion

Spiders are ubiquitous in southern Africa<sup>1</sup>. A review by Newlands et al<sup>2</sup> described four spiders known to be medically important in Southern Africa and they divided them into two categories according to the action of their venom- neurotoxic and cytotoxic. The three genera that represent the cytotoxic group in Southern Africa are the *Chiracanthium*, *Loxosceles* and *Sicarius*. A single species, *latrodecus indistinctus*, represents the neurotoxic group in southern Africa. Muller et al<sup>3</sup> reviewed 45 cases of spider bites of the genera *Latrodectus*, also known as widow spiders and locally known as black and brown button spiders. He found out that black widow spiders caused more severe form of envenomation than brown widow spiders. Surgical emphysema was not reported.

Only four cases of spider bites have been reported in the otolaryngology literature and all of them have been cases of brown recluse spider (*Loxosceles reclusa*) bites to the head<sup>4,5</sup>. None of the above cases had surgical emphysema.

In our case, the patient was referred to otolaryngology department carrying a differential diagnosis of orbital cellulitis which was ruled out upon review of the

patient and his x-rays. The finding of extensive surgical emphysema with no particular source of infection or perforation of upper aerodigestive tract was peculiar. Searching the literature, surgical emphysema is not reported to be one of the clinical effects of spider bites.

## References

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