

### **Cytotoxic Spider Bites: Cases of Mistaken Identity**

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**BACKGROUND AND OBJECTIVE:** In South Africa medically important cytotoxic spiders include the Cheiracanthium and Loxosceles spiders. The diagnosis of necrotic arachnidism is difficult, because bites are often unwitnessed and lesions nonspecific. The objective was to establish if a new classification for the grading of aetiological certainty of spider bites could be determined and secondly to illustrate misattributions of skin lesions to spider bites.

**METHOD:** An assessment of poison centre data regarding cytotoxic spider bites from January 2005 to December 2017 was performed. Patient demographics, geographical locations and symptoms experienced by patients were extracted. Spider bites were classified as definite, probable or unlikely based on positive identification, clinical features recorded and geographical locations. Prospectively collected cases initially reported as a spider bite were identified and the clinical progression monitored.

**RESULTS:** Only 5 (2.1%) of the 242 possible cytotoxic spiders bites reported were positively identified: namely two sac, two violin and one six eyed sand spider. Another 27 (11.2%) were classified as probable cytotoxic bites due to geographical location and clinical features. The majority of reported bites can be regarded as unlikely, 211 (86.8%). Swelling (22.4%), redness (17.0%) and pain (15.8%) were the most common clinical features. Medical conditions misdiagnosed as necrotic arachnidism included folliculitis, varicose eczema, cellulitis and atypical ulcers.

**CONCLUSION:** Although swelling, redness and pain are features of early necrotic arachnidism, these features are non-specific and are observed in various other illnesses. The majority of reported skin lesions are unlikely to be caused by spider bites. A distribution map of cytotoxic spider bites highlighted the geographic areas in which these could be concerned. The poison centre data was insufficient to fully describe necrotic arachnidism, however, certain categories for the diagnosis of cytotoxic spider bites can be suggested, namely definite, probable and unlikely.