Letters to Editor
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Systemic Inflammatory Response Syndrome with Multiple Organ Dysfunction Syndrome due to Hymenoptera Envenomation

Sir,

Two young males; A, 25 years and B, 20 years were traveling on a bike when they were attacked by a swarm of wasps. They got down from the bike and ran into the forest. A removed his shirt as few of the wasps had entered into his clothes. B had a matchstick and lit fire to escape from an unrelenting attack from the wasps. Both sustained multiple stings from wasps. B escaped with fewer stings because of the fire that he managed to light with some dry leaves. He called A to come near the fire, but A had become incapacitated by the attack of the swarm by that time and was losing consciousness. B helped A by generating smoke from fire, which drew the wasps away from them. B then helped A to reach the road and with the help of people they were taken to the nearest hospital. There they received IV fluids, antihistaminics, and steroids, and were referred to our hospital.

They reached our hospital 90 min after the attack. Both were conscious, and A was looking sicker compared to B. Both had tachycardia, but blood pressures were normal. On examination, both had facial swelling, puffiness of eyes, and multiple bruises over the body extremities [Figure 1-upper half]. On investigation, both showed evidence of acute renal failure. A had proteinuria and B had raised urea and creatinine. Both showed evidence of rhabdomyolysis. A had creatinine phosphokinase level of 5820 U/L while B had a level of 1634 U/L. Both A and B had leukocytosis with counts of 16300/ mm^3 (85% neutrophils and 8% lymphocytes) and 18,800/mm^3 (85% neutrophils and 9% lymphocytes), respectively. Both A and B had high aspartate aminotransferase levels of 100 U/L and 57 U/L, respectively. Both had mild hemolysis with mild unconjugated hyperbilirubinemia. A had total bilirubin of 1.47 mg/dl and direct bilirubin of 0.28 mg/dl. B had total bilirubin of 1.38 mg/dl with a direct bilirubin of 0.32 mg/dl. Both A and B had normal erythrocyte sedimentation rate of 11 mm and 6 mm at 1^{st} h, respectively. Both A and B had normal platelet counts of 199,000/mm^3 and 182,000/mm^3, respectively. Thus, both had developed systemic inflammatory response syndrome and multiple organ dysfunction syndrome as a result of the massive Hymenoptera envenomation.



Figure 1. Upper half showing puffiness of face, lower eyelids, lips, and ears; lower half showing brownish discoloration resulting from wasp bite in the palpebral conjunctiva.

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In addition, A had a sting mark in the left palpebral conjunctiva with local brownish discoloration without surrounding inflammation [Figure 1-lower half]. A also complained of a bee in his left ear, which was removed by an ENT expert. Both recovered fully on conservative management and their biochemical investigations normalized by day 3 and were discharged after 4 days of hospitalization without any residual deficit.

Through these cases, we want to report typical dose-dependent changes to be expected in Hymenoptera envenomation. These include severe pain, swelling over face, tachycardia, acute renal failure, transaminitis, rhabdomyolysis, hemolysis, and leukocytosis with predominant neutrophilia. None of our patients was hypotensive or hypertensive.

Anaphylaxis occurs due to pre sensitization of the individual with Hymenoptera venom and can develop with a single bite. It manifests with shock, angioedema, laryngospasm, and bronchospasm. Anaphylaxis is different from envenomation, which is dose-dependent. Our patients depict the typical manifestations of Hymenoptera envenomation.

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None declared.