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AN UNUSUAL CASE OF ANAPHYLACTIC SHOCK INDUCED BY HORNET STING

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Statement of the problem: Non-lethal allergic reactions to insect stings of bees, wasps and hornets can be seen in up to 20% of the population. Lethal bites or stings by poisonous animals are a rare events in Germany and northern Europe; less than twenty cases occurs/ year, with an incidence of 25/10 Mio(1); this corresponds to data from USA with 1.4/10 Mio(2). In most cases, death occurs within several hours presenting with dramatic symptoms: swelling of the throat, face, and lips; dizziness or fainting, nausea and vomiting; abdominal cramping, asphyxia, tachycardia and loss of consciousness. In spite of this, there are only few autopsy records and histopathologic and molecular-pathologic descriptrions (3, 4, 5). We present the case of a young man,who, photographed the insect killing him before of his death.

Anamnesis: 33 year old sportive man with no relevant diseases. Business partners found him unconscious sitting in his car. The emergency medicine specialist confirmed the shock and asphyxia and began with resuscitation measures, which were continued in the emergency room of the hospital. Presuming an anginqa pectoris or myocardial infarction an emergency coronary angiography with thrombolysis was performed, but the patient died. Investigations by the coroner's office revealed that the patient got a sting by a hornet (which he could not identify) and therefore photographed it with his mobile, and tried to call some friends and the doctor on call without success.

Clinical features: cardial and asphyctic shock; swelling of the face and neck; cyanosis of the lips and centralization of the circulation.

Laboratory data: highly elevated tryptase of mastcells and sIG of different bee and whasptoxins.

Autopsy: Autopsy revealed (90kg, 182cm); small abdominal scar; hyperemic red patch intergluteal (hornetsting) subcutaneous edema in head, neck and thorax; swollen tongue. Highgrade microthrombosis and initial microvasculitis in all organs: consecutive intraalveolar and interstitial pulmonary edema, central shock necrosis of the liver; splenomegalia and congestion.Hypoxic swelling of the brain and myocardial ischemic necrosis was observed.

Conclusion & Significance: Autopsy-diagnosis of hornet-induced anaphylaxia is possible by characteristic elevation of tryptase and antibodies against whasp-toxins and vascular, pulmonary, intestinal and cardial microthrombosis and microembolies.

Biography

Peter Stoemmer is a Consultant in Surgical and Anatomic Pathology at the University of Erlangen-Nuremberg. He is a Fellow of the College of American Pathologist and the Director of the Institute of Pathology Hermanstr1 in Augsburg and Lecturer at University of Erlangen Nuremberg. He has received his professor and his doctorates from the University of Erlangen-Nuremberg and studied Molecular Pathology at the University of Westminster. He is *Facharzt für Pathologie* and a Member of the K V Bayern. His institute is accredited according to the strictest rules of DAKKs.

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