

Anaphylaxis in Odense; elicitors, symptoms and treatment in children and adults.

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Background: Anaphylaxis is a severe potentially life-threatening hypersensitivity reaction with an estimated lifetime prevalence of 0.5–2.0%. The prevalence of anaphylactic reactions in Denmark is unknown. This study aims to estimate the one year period prevalence of anaphylaxis in children and adults in the Emergency Department (ED) and Acute Pediatric Ward (APW) at Odense University Hospital (OUH) and to describe elicitors, symptoms, severity and the treatment administered.

Methods: Prospective and descriptive, non-interventional study conducted in the ED and APW at OUH during the period from May 1st, 2013 to April 30th, 2014. All the patients with clinical suspicion of anaphylaxis or a diagnosis related to anaphylaxis according to the International Classification of Diseases 10 (ICD-10) identified from the Acute Cohort System in Odense or patients treated in ED and APW or at pre-hospital level with adrenaline, antihistamines and glucocorticoids were assessed and referred to the Allergy Center. At the first visit in the Allergy Center a standardized interview regarding the reaction / symptoms, sex, age, suspected elicitors, administered treatment, co-factors and concomitant diseases. The severity of the anaphylactic reaction was evaluated according to Sampson's severity score.

Results: A total of 226 patients were included. Of these, 180 patients (80%) fulfilled the WAO (World Allergy Organization) criteria for anaphylaxis; 99 women and 81 men with a mean age of 42.2 years; 23 children (0-17 years) and 157 adults (18-88 years). The most common elicitor in children was food (61%) while drugs (48%) were the most common elicitor in adults followed by venom (24%). The most common symptoms of anaphylaxis were from the skin/mucosal tissue (94%) followed by respiratory symptoms (79%). Cardiovascular symptoms were more often observed in adults (60%) than in children (43%). Moderate to severe anaphylaxis (Sampson grade 4 and 5) was observed in 81% of the patients and the most frequently drugs administered were antihistamines (90%) and glucocorticoids (84%), while adrenaline was administered in only 37% of patients with moderate to severe anaphylaxis.

Conclusion: Our results show that anaphylaxis varies in an age-dependent manner regarding both the elicitor profile and the clinical presentation. Still glucocorticoids and antihistamines are used more frequently than adrenaline, reflecting discordance between the clinical practice and the current guidelines.