

Phenotype of drug-induced anaphylaxis depends on the eliciting drug - data from the European Anaphylaxis Registry

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Abstract

Introduction and objective Drugs are a frequent cause of severe anaphylactic reactions. Clinical epidemiology of drug-induced anaphylaxis (DIA) supports the identification of the most frequent eliciting drug groups, risk factors, symptoms and treatment procedures. Our aim was to analyze data to promote better recognition and long-term management of affected individuals. **Methods** Data from the European Anaphylaxis Registry (2007-2019) with 1,815 cases of drug-induced anaphylaxis were analyzed regarding demographics, elicitors, symptoms, comorbidities, and treatment. **Results** The most frequent eliciting groups of drugs were analgesics (41.27%) – with non-steroidal anti-inflammatory drugs (NSAIDs) being the most common subgroup (65.42%) – antibiotics (33.17%), local anesthetics (7.38%) and radiocontrast media (5.18%). Adrenaline was used more often in patients with DIA (23.20%) than in anaphylaxis due to other causes (17.82%). The majority of events occurred in female patients (65.34%), although they were admitted to hospital (29.01%) or an intensive care unit (ICU) (9.61%) less often. Skin symptoms were most common (84.02%), while gastrointestinal symptoms were reported less frequently (30.25%). Compared to other anaphylactic reactions in the registry (food/insects) severe reactions occurred significantly more often in DIA (5.62% vs. 1.67%). Hospitalization (31.63%) and ICU admission rates (11.85%) were significantly higher in DIA than

anaphylactic reactions to other elicitors (27.58% and 5.45%). **Conclusions** DIA affects middle aged females more frequently and is more severe in elderly males in the sample observed. Analgesics and antibiotics are the leading causes of DIA. Adrenaline was rarely administered to patients, even though it is recommended by guidelines.

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