Commentary

Prevention and Management of Adverse Reactions Induced by Iodinated Contrast Media

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Abstract

Iodinated radiocontrast media (IRCM) is widely used in current clinical practice. Although IRCM is generally safe, serious adverse drug reactions (ADRs) may still occur. IRCM-induced ADRs may be subdivided into chemotoxic and hypersensitivity reactions. Several factors have been shown to be associated with an increased risk of ADRs, including previous contrast media reactions, history of asthma and allergic disease, etc. Contrast media with lower osmolality is generally recommended for at-risk patients to prevent ADRs. Current premedication prophylaxis in at-risk patients may reduce the risk of ADRs. However, there is still a lack of consensus on the prophylactic role of premedication. Contrast-induced nephropathy (CIN) is another component of IRCM-related ADRs. Hydration remains the mainstay of CIN prophylaxis in at-risk patients. Despite several preventive measures, ADRs may still occur. Treatment strategies for potential contrast reactions are also summarised in this article. This article summarises the pathophysiology, epidemiology and risk factors of ADRs with emphasis on prevention and treatment strategies. This will allow readers to understand the rationale behind appropriate patient preparation for diagnostic imaging involving IRCM.

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