

Adverse Reactions from Contrast Media in Patients Undergone Computed Tomography at the Department of Radiology, Srinagarind Hospital

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Abstract : Background: The incidence of adverse reactions to iodinated contrast media has risen. The dearth of reports on reactions to the administration of iso- and low-osmolar contrast media should be addressed. We, therefore, studied the profile of adverse reactions to iodinated contrast media; viz., (a) the body systems affected (b) causality, (c) severity, and (d) preventability. Objective: To study adverse reactions (causes and severity) to iodinated contrast media at Srinagarind Hospital. Method: Between March and July, 2015, 1,101 patients from the Department of Radiology were observed and interviewed for the occurrence of adverse reactions. The patients were classified per Naranjo's algorithm and through use of an adverse reactions questionnaire. Results: A total of 105 cases (9.5%) reported adverse reactions (57% male; 43% female); among whom 2% were iso-osmolar vs. 98% low-osmolar. Diagnoses included hepatoma and cholangiocarcinoma (24.8%), colorectal cancer (9.5%), breast cancer (5.7%), cervical cancer (3.8%), lung cancer (2.9%), bone cancer (1.9%), and others (51.5%). Underlying diseases included hypertension and diabetes mellitus type 2. Mild, moderate, and severe adverse reactions accounted for 92, 5 and 3%, respectively. The respective groups of escalating symptoms included (a) mild urticaria, itching, rash, nausea, vomiting, dizziness, and headache; (b) moderate hypertension, hypotension, dyspnea, tachycardia and bronchospasm; and (c) severe laryngeal edema, profound hypotension, and convulsions. All reactions could be anticipated per Naranjo's algorithm. Conclusion: Mild to moderate adverse reactions to low-osmolar contrast media were most common and these occurred immediately after administration. For patient safety and better outcomes, improving the identification of patients likely to have an adverse reaction is essential.

Keywords : adverse reactions, contrast media, computed tomography, iodinated contrast agents

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