Incidence, clinical manifestations, and outcome of adverse reactions to intravenous radio-contrast media following computed tomography (CT)

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Background: Adverse reactions to intravenous radio-contrast media have been a growing medical concern because they are relatively common and potentially life threatening. The objective of our study was to evaluate the incidence, clinical manifestations, and outcome of adverse reactions to IV RCM in general population. Methods: Medical and reaction reports of all examinee that were scheduled to undergo CT with IV RCM were reviewed and monitored by RCM adverse reaction surveillance team consisting of nurses and allergy specialists. Data collected included age, sex, individual past history of previous RCM hypersensitivity reaction, risk factor, clinical manifestation, treatment, and progress.

Results: There were 521 cases of confirmed or suspected RCM adverse reactions among a total of 12,600 cases during the period from June 1, 2008 to May 30, 2009, thus the estimated incidence was 4.1%. Of these, 495 (95.1%) reactions were immediate reactions and 26 (4.9%) cases were late reactions that occurred more than 1 hr following RCM administration. 91.7% was classified as mild reaction, 7.5% as moderate, and 0.7% as severe. Pruritus/erythema/urticaria was most common clinical presentations followed by nasal symptoms, angioedema, nausea/vomiting. One hundred fifty-four patients (29.56%) received treatment. The most commonly administered medication was diphenhydramine (124 patients or 23%). Corticosteroids were administered to 30 patients.

Conclusion: The incidence of adverse reaction to RCM was 4.1% in the general population. Although a few cases had severe reactions, the majority of patients usually do well after developing RCM adverse reaction.

Different types of airway inflammation by chronic rhinitis with and without nasal polyps

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Background: Chronic rhinitis is related to asthma. The orchestrating T-effector cells, remodeling patterns, and type of inflammation clearly differ between Chronic rhinitis with and without nasal polyps. Objective: To evaluate the differences of lower airway inflammation related to chronic rhinitis with and without nasal polyps. Methods: A total of 35 patients who had positive methacholine bronchial provocation test and had been diagnosed as chronic rhinitis by rhinitis symptoms more than 3 months and rhinoscopy were retrospectively reviewed. A thorough retrospective review comprised medical history, symptoms, allergic status, induced sputum cell profile and rhinoscopic findings. Results: There were 17 men and 18 women, aged 16 to 75 years were evaluated. 13 patients had nasal polyps and 22 patients didn’t have nasal polyps. There were more non-atopic patients in chronic rhinitis with nasal polyps than those without nasal polyps (45% vs. 95%, P =0.011). Sputum eosinophil count were higher in chronic rhinitis with nasal polyps group (18.3±22.1% vs. 5.0±6.3%, mean±S.D., P=0.002). There were no differences in PC20 level between two groups. Conclusion: In patients with bronchial hyperresponsiveness and chronic rhinitis, lower airway inflammations are different by presence of nasal polyps. There are more non-atopic, eosinophilic lower airway inflammations in chronic rhinitis patients with nasal polyps.