ADVERSE DRUG REACTIONS, INCLUDING SJS, TEN

DRUG-INDUCED INTRACRANIAL HYPERTENSION: A SYSTEMATIC REVIEW AND CRITICAL ASSESSMENT OF DRUG-INDUCED CAUSES

Marcus Tan [1] - Brandon Worley [1] - Martin ten Hove [2] - Jennifer Beecker [1]

University of Ottawa, Division of Dermatology, Ottawa, Canada [1] - Queen's University, Department of Ophthalmology, Kingston, Canada [2]

BACKGROUND: Idiopathic Intracranial Hypertension (IIH) is a condition with increased intracranial pressure of unknown etiology. Its presenting symptoms include persistent headache, pulsatile tinnitus and visual obscuration. It tends to occur in obese women of childbearing age. Its greatest risk is irreversible visual loss. Some of the commonly used medications in Dermatology, especially those for acne vulgaris, have been associated with IIH.

OBJECTIVE: To critically-assess all published cases of IIH and identify high risk drugs associated with IIH.

METHODS: MEDLINE, EMBASE, and Cochrane Databases were searched for all cases of IIH thought to be drug-related between 1900 and 2017. A total of 4730 articles were identified, and 223 articles were found to be relevant. All cases were assessed to satisfy the modified Dandy criteria for diagnosis of IIH, and the probability of the case being drug-induced was calculated based on the Koh Algorithm for Adverse Drug Reactions (p ≥0.75 out of 1.0). An association category (from weakly associated [Category I] to strongly associated [Category V]) was assigned based on the number of cases meeting these criteria.

RESULTS: Recombinant growth hormone, retinoids, tetracycline-class antibiotics and lithium were found to be most strongly associated with IIH (Categories IV and V). Corticosteroids were moderately associated with IIH (Category III). Drugs that were weakly associated with IIH (Categories I & II) include amiodarone, cyclosporine, gonadotropin releasing hormones and luteinizing hormone-releasing hormone agonist, levonorgestrel, nalidixic acid, sulfenazone, second and third generation fluoroquinolones and oral contraceptive medications.

CONCLUSION: We suggest using the term “drug-induced intracranial hypertension” (DIIH) and propose a set of diagnostic criteria for DIIH. Our review attempts to identify DIIH-

associated drugs based on a strict diagnostic and drug-causality algorithm, then stratify them into appropriate risks categories to assist dermatologists in counselling patients about DIIH and recognizing this uncommon yet sight-threatening condition.