Paper #35

History of Beta-Lactam Allergy in Total Joint Patients: Are These Patients Really Allergic?

Nicolas Noiseux, MD, Deanna McDanel, PharmD, Ambar Haleem, MD, Amy Dowden, MD, Melissa Willenborg, MD, Charles Clark, MD, John Callaghan, MD

Introduction: The reliability of a reported drug allergy by patients or by documentation in their medical record has been disputed in numerous studies. In 2013 with the development of a drug allergy clinic at our institution, patients undergoing joint replacement with a reported history of beta-lactam allergy (HOBA) were referred to the clinic to determine whether there was a true presence of an IgE-mediated hypersensitivity. The purpose of this study was to determine the effectiveness of this program in enabling the surgical team to optimize antimicrobial prophylaxis and promote antimicrobial prophylaxis stewardship.

Methods: Between February 2013 and April 2015, 179 patients with a HOBA were referred to the Allergy Clinic for evaluation. Patients were evaluated by undergoing penicillin skin testing (PST) and/or a drug challenge to a beta-lactam medication. No further intervention was done if an inaccurate history was identified.

Results: PST was performed on 150 (84%) patients. A negative skin test occurred in 149 (99%) patients, indicating they were not allergic to penicillin. Cefazolin was deemed safe to use in 165 of 170 (97%) patients. Cefazolin in any surgical prophylaxis regimen was given in 156 of the 170 (92%) surgeries and there were no intra-operative reactions. This included 94% of patients with a negative PST and 80% of patients who did not undergo PST after initial screening. The overall use of cefazolin in orthopedic surgeries in patients with HOBA was 13% prior to the program in 2012 and 96% in 2015.

Conclusions: 99% of patients who had a HOBA were evaluated with PST and or drug challenge to a beta-lactam medication were not truly allergic and the use of a standard surgical prophylaxis with cefazolin was deemed safe in 97% of patients evaluated. Joint replacement and spine surgeons should consider implementing allergy screening programs to optimize antimicrobial prophylaxis.

Notes