

POSTER ABSTRACTS

195. Rapid Intravenous Antibiotic Desensitization: Clinical Experience at a Single Center

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Background. Allergies to penicillin and other classes of antibiotics are common. Withholding appropriate therapy due to reported antibiotic allergy is associated with increased morbidity, mortality, and economic costs. Additionally, antibiotic choices are becoming further limited due to increasing prevalence of multi-drug resistant

organisms. Rapid intravenous antibiotic desensitization (RIAD) is not a common practice but may be a useful modality to overcome problematic antibiotic allergies. Our objective was to analyze the safety and efficacy of RIAD, in both non-cystic fibrosis (CF) and CF populations, at our institution.

Methods. A retrospective review of 20 patients who underwent RIAD at a single tertiary medical center from October 2009 through March 2014.

Results. A total of 23 RIAD courses were performed on 20 patients. There were 12 females and 8 males, with an average age of 43 years (range, 21 to 81 years). There were 15 (65%) non-CF RIADs and 8 (35%) CF RIADs. Ten different antibiotics were used in 23 RIADs: one metronidazole, two cephalosporins (cefazolin, cefoxitin), three carbapenems (two meropenem, one doripenem), and 17 penicillin agents. Of 23 RIAD courses, 17 (74%) were successful. The success rate was 80% in non-CF patients and 62.5% in CF patients. Except for one patient, all completed the initial desensitization process successfully. Of the other five failures, four occurred within 24 hours of desensitization and one at 21 days into therapy. Only 1 of 23 courses resulted in increased morbidity and prolonged length of stay. The mean duration of successful antibiotic administration was 56 days. Failure of prior desensitization did not predict repeat failure.

Conclusion. RIAD is an efficacious and safe modality to overcome problematic antibiotic allergies. Our study provides encouraging results supporting the application of RIAD, especially in non-CF patients. Our study also includes the first report of successful metronidazole desensitization.

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