Cefaroline in the Treatment of Methicillin-Resistant Staphylococcus aureus Bloodstream Infections

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OBJECTIVES

Primary outcome: Clinical success defined as a composite of 30-day survival and clearance of MRSA from blood cultures on cefaroline

Secondary outcome: Microbiological cure defined as clearance of MRSA from blood cultures on cefaroline

RESULTS: TABLE 1 PATIENT CASES

RESULTS: TABLE 2. SUMMARY OF RESULTS

CONCLUSIONS

This retrospective case series shows that cefaroline was an effective therapy for MRSA BSI in our treatment-experienced population. All 28 patients achieved microbiological cure. When switched to cefaroline, all patients had clearance of MRSA BSI within 96 hours. To our knowledge, this is the largest series to date using cefaroline for endocarditis; clinical success was seen in 9/11 (82%) of patients. Further prospective studies evaluating the use of cefaroline in the treatment of MRSA BSI are needed.

DISCLOSURES

Jason Gallagher is a consultant and speaker’s bureau member for Alexion.

REFERENCES

INTRODUCTION

The rising rate of MRSA BSI clinical morbidity and treatment failure is an increasingly complex situation. At present, the treatment mainstays for MRSA BSI include vancomycin and daptomycin. Cefaroline is a novel fifth-generation cephalosporin with activity against MRSA, currently approved for acute bacterial skin and skin structure infections (ABSSSIs) and community-acquired bacterial pneumonia. On September 2nd, 2015, the FDA approved a label update for cefaroline to include patients with baseline Staphylococcus aureus BSI in patients with ABSSSI. We performed this study to describe our experience using cefaroline for MRSA BSI at Temple University Hospital.

METHODS

Pharmacy records were reviewed for all patients at TUM who received cefaroline therapy during the period of July 2013 to April 2015. MRSA BSI was defined by at least 1 positive blood culture per CDC guidance. Concurrent antimicrobial therapy was allowed. BD Phoenix was used for all microbiological methods except MIC determination by E-test when noted. Endocarditis was defined using the Duke Criteria for "definitive" endocarditis.

Table 1 summarizes the patient characteristics and successful treatment outcomes. Table 2 summarizes all microbiological results. All MRSA BSI were treated with cefaroline except 1 patient that had switching to daptomycin due to cefaroline failure.

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