Infective endocarditis caused by Gemella sanguinis in a hemodialysis patient

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Gemella sanguinis is gram-positive, anaerobic, catalase and oxidase negative. Only two cases of G. sanguinis endocarditis were reported before. Predisposing factors include vascular access, poor dental hygiene, diabetes mellitus, valvular disease. A 73-year-old oriental man was admitted with fever. He had a history of non-insulin dependent diabetes mellitus, hypertension and end-stage renal disease on hemodialysis. He had extensive caries destruction. Vital signs revealed a temperature of 38.8 °C. On auscultation, a to-and-fro murmur with an intensity of a grade of Levine 3/6 was heard at the Erb’s area. White blood cell count was elevated to 21,200 /mm³. A transthoracic echocardiogram demonstrated the vegetation on the anterior mitral leaflet with moderate to severe mitral valve regurgitation. Blood cultures were obtained on admission. The samples were inoculated in SA and SN media and incubated with BacT/Alert 3D system (bioMerieux, Marci L’Etoile, France). The organism was identified as G. sanguinis. He met 2 major criteria and 1 minor modified Duke criteria. Ampicillin-sulbactam and gentamicin were started. The organism was sensitive to ampicillin, cefotaxim, erythromycin, clindamycin, vancomycin and quinupristin/dalfopristin by diffusion. Etest MIC of penicillin was 0.019 µg/mL. The following up transthoracic echocardiogram revealed that vegetation was growing up. The patient deteriorated rapidly and died. We report for the reason G. sanguinis should be examined as a cause of endocarditis.

Efficacy and safety profile of voriconazole as a salvage therapy for invasive aspergillosis with hematologic diseases in Korea

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Background: Invasive Aspergillosis (IA) is associated with significant morbidity and mortality in patients with hematologic malignancies. We investigated the efficacy and safety of voriconazole (VCZ) when used as salvage therapy for IA who did not respond to the prior antifungal therapy in Korean adults with hematologic malignancies. Methods: We retrospectively reviewed data in patients with IA (proven and probable cases) refractory or intolerant to the antifungal therapy prior to VCZ. Data were collected from January 2007 to October 2008. All patients except 1 proven case were probable IA cases. Efficacy and safety were assessed in patients treated with VCZ more than 3 days. Favorable response [complete (CR) or partial (PR)] was defined as significant improvement of all clinical symptoms, signs, and radiologic abnormalities. Results: Fifty patients who met the inclusion criteria were enrolled. There were 27 male and 23 female patients with mean age of 44.4 years (range, 15-65). Underlying diseases were acute leukemia (35 cases), chronic myelogenous leukemia (4 cases), myelodysplastic syndrome (3 cases), and other hematologic diseases (8 cases). Twenty-two patients received chemotherapy and 13 patients were under hematopoietic stem cell transplantation. Lung was the main infection site (94%) followed by sinus (6%). Amphotericin B deoxycholate alone was the most frequent previous antifungal therapy. Mean duration of antifungal therapy prior to VCZ was 13.9±8.8 days (2-44 days). Median duration of VCZ therapy was 19 days (interquartile range, 49 days). Sixteen patients (32.0%) showed favorable responses (CR:PR=8:8) at the end of VCZ therapy. The number of patients with stable disease, progression and death was 6 (12%), 6 (12%) and 22 (44%), respectively. Those with unfavorable responses mostly had relapsed underlying malignancies or refractory graft versus host diseases. Twelve patients developed drug-related adverse events but only one patient stopped the study medication prematurely. Conclusion: VCZ demonstrated acceptable level of toxicity in patients with hematologic malignancies but further studies are required to prove its efficacy as a salvage therapy.