DISCUSSION

In a 2002 study, 165 patients with endocarditis were identified. 5 patients had pneumococcal endocarditis and 23 had Austrian’s Triad. Risk factors of Austrian’s triad include alcoholism, sinus infection, immunosuppression, and IV drug abuse. These patients do not present with typical peripheral findings of endocarditis. 80% of cases involve the native aortic valve and heart failure is present in most cases. Mortality rates exceed 40%.

Complications of Austrian’s include heart failure, suppurative pericarditis, tamponade, and septic emboli. Embolic events occur in 22-50% of cases of endocarditis. In one case series, the incidence of coronary embolus was 7%. Upon autopsy of patients with endocarditis, coronary emboli were seen in 80% of cases. Myocardial infarction is a rare complication of coronary artery embolization; in one series it was reported in 17556 cases of infective endocarditis. A curious aspect of this patient’s case is that she presented with significant MI; troponin peaked at 90. We postulate that our patient had Austrian’s triad complicated by coronary embolism.

MANAGEMENT OF CORONARY EMBOLI

Coronary emboli are an infrequent cause of MI, but very frequently seen in patients with endocarditis. Options for management include thrombolytics, cardiac catheterization, and cardiac surgery.

Thrombolytics are contraindicated because of the high risk of hemorrhage due to cerebral septic emboli. Options for management include thrombolytics, cardiac catheterization, and cardiac surgery. Coronary emboli are an infrequent cause of MI, but very frequently seen in patients with endocarditis. We recommend immediate valve replacement. In our patient, the aortic valve was replaced due to cerebral hemorrhage. Balloon angioplasty has been successful in some cases; initially the aspiration technique is attempted and then a wire is advanced past the lesion to balloon the debris to the side of the lesion. Another option is stent placement, but in the setting of bacteremia, the stent can become infected and potentially cause a myocardial aneurysm.

MANAGEMENT OF COMPLICATIONS

Aortic valve replacement should have been considered in order to prevent complications, which occur early in the course of disease. Some experts recommend immediate valve replacement. In our patient’s case, the diagnosis was not made until day 4 of admission and she already had cerebral and coronary emboli. She did not have persistent bacteremia, large vegetation, and her shock was medically managed. Our patient had a good outcome without valve replacement. Thus the need for valve replacement should be evaluated on an individual case basis.

LEARNING POINTS

- IE due to *S. pneumoniae* is rare (1-3%). However, Austrian’s triad is common among these patients (about 60%).
- In patients with *S. pneumoniae* bacteremia and altered mental status, Austrian’s Triad should be considered early.
- Patients may present with typical physical exam findings associated with endocarditis.
- The aortic valve is typically affected. TTE infrequently detects vegetations. TEE should be done to rule out endocarditis.
- *S. pneumoniae* infection by vaccination provides protection from invasive *S. pneumoniae* infection.

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