

YIA-1

Administration of steroid could be associated with larger coronary artery aneurysm in patients with Kawasaki disease – a single center experience

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Background

The number of patients with giant coronary artery aneurysm (CAA) has not been expectedly decreased so much according to the 24th the national survey for KD in Japan.

Objective

To elucidate the risk profiles of KD patients who develop CAA with special reference to steroid treatment.

DESIGN/METHODS

We performed a retrospective analysis of patients who were evaluated for KD between July 2003 and July 2018. Demographics of the patients were obtained from the medical records and characteristics of the CAA were evaluated by using echocardiogram and coronary angiography, which included number of CAA, the location of CAA (bilateral, left only, right only), the size of CAA (Z score), the length of CAA (1 segment, 2 segments only, and over 3 segments). We divided the patients into 2 groups who used steroid or not and compared these characteristics. Furthermore, we compared the the incidence of complication of CAA and cardiac events between these 2 groups.

RESULTS

A total of 29 patients were suspected to have CAA by echocardiogram and coronary angiography was performed in our institution during the study period (24 males, median age 24 months (range; 2 months -7years). These KD patients were treated by aspirin and intravenous immunoglobulin (IVIG) in 17 cases (60 %, non-steroid group), aspirin and IVIG plus steroid in 11 (37%, steroid group) cases, and unknown in 1 (3%) case. There were no significant differences in the number of CAA, the location of CAA, the length of CAA between steroid group and non-steroid group. But the size of CAA was significantly larger in patients with steroid group for Z score (steroid 8.7 vs non-steroid 6.3, $p=0.02$). During the median follow up period of 33 months (range: 1 month - 10 years), we observed 12 (41%) cases of coronary artery stenosis, 5 (17%) cases of coronary artery occlusion, of whom 2 cases required coronary artery bypass grafting.

CONCLUSIONS

CAA size was larger in KD patients who used steroid than that of non-users. However, cardiac complication of CAA and cardiac events were comparable between these groups. Further prospective, multicenter studies are needed to confirm these findings.