

The differences in patient background between endovascular therapy and bypass surgery for claudicant

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OBJECTIVES: Although endovascular therapy (EVT) has advanced, outcomes of treatment for femoropopliteal artery disease is still not enough. There is still limited information regarding differences between EVT and Bypass surgery for femoropopliteal disease. The purpose of this study was to evaluate the differences in patient background between EVT and bypass surgery for claudicant with femoropopliteal disease.

METHODS: Data from the RECANALISE (REtrospective Comparative ANALysis of the revascuLarization method for Infrainguinal artery diseaSE, surgical reconstruction and Endovascular treatment) registry, retrospective, multicenter registry in Japan (n=1308). In 589 claudicants with femoropopliteal lesion, bypass surgery (n=91) or EVT (n=498) was performed for each patient. Comparisons of continuous and categorical variables between groups were performed.

RESULTS: Compared with the bypass surgery group, patients who underwent EVT were significantly older and had a greater number of comorbidities, such as renal failure requiring hemodialysis, coronary artery disease, history of heart failure, and low left ventricular ejection fraction. In contrast, there were more smokers in the bypass surgery group, and almost all of these patients were in the Rutherford 3 category. According to lesion characteristics, lesions were longer and there were more cases of chronic total occlusion among patients who underwent bypass surgery, while there was greater number of severe calcifications in lesions in the EVT group. The proportion of TASC-II D patients was thus significantly higher in the bypass group.

CONCLUSIONS: In conclusion, patient background was very different between EVT and bypass surgery. Evaluation of the bias is important in comparing the performance of both.