Actuarial Analysis of Reoperation in Patients Undergoing Open Mitral Commissurotomy for Mitral Stenosis

Susumu Nakano, M.D., Hajime Hirose, M.D., Hikaru Matsuda, M.D.
Kazuhiro Taniguchi, M.D., Tomohide Kawamoto, M.D.
and Yasunaru Kawashima, M.D.

Reoperation is one of the most seriously problematical events in postoperative follow-up of patients undergoing open mitral commissurotomy (OMC) for mitral stenosis. In 217 patients with pure mitral stenosis, even when associated with severe subvalvular changes, the actuarial rate of freedom from reoperation was 94% 12 years after OMC. In contrast, in 85 patients with MS combined with regurgitation, the rate was 66%. In postoperative management of patients undergoing OMC, it is mandatory to know preoperative anatomical findings of the stenosed mitral valve.

In postoperative follow-up of patients who underwent open mitral commissurotomy (OMC) for mitral stenosis (MS), reoperation is one of the most seriously problematical events. In this study, we analyzed the incidence and causes of reoperation after OMC.

MATERIALS AND METHODS

Between 1967 and 1984, 315 patients underwent OMC with complete relief of fused subvalvular structures at Osaka University Hospital. These patients were divided into three groups according to the pathological classifications for stenosed mitral valves: type I, mobile cusps without subvalvular changes (38 patients); type II, thickened cusps with mild to moderate subvalvular changes (199 patients); type III, rigid cusps with severe subvalvular changes (78 patients). Eighty-five of 315 patients had MS combined with regurgitation of less than 2/4 degree (MSr).

RESULTS

Sixteen (5.1%) of 315 patients who underwent OMC required reoperation 1.2 to 11.7 years (with a mean of 6.5 years) after operation. The actuarial rate of freedom from reoperation was 100% in Type I, 82.6% in Type II, and 77% in Type III 12 years after operation (Fig. 1). There was no significant difference between Type II and Type III patients.

In the 217 patients with pure MS, the actuarial rate of freedom from reoperation was 94% 12 years after operation. In contrast, in the 85 patients with MSr, the rate was 66% (Fig. 2). Therefore, there was significant difference between the two groups.

DISCUSSION

The efficacy of OMC depends primarily on the pathological deformities of the mitral valve. In patients with pure MS, even when associated with severe subvalvular changes, the incidence of reoperation was extremely low. On the other hand, the long-term results were unsatisfactory in patients with MS combined

Key Words:
Mitral stenosis
Open mitral commissurotomy

First Department of Surgery, Osaka University Medical School, Osaka, Japan
Mailing address: Susumu Nakano, M.D., First Department of Surgery, Osaka University Medical School 1-1-50, Fukushima, Fukushima-ku, Osaka 553, Japan

Japanese Circulation Journal Vol. 50, September 1986 877
Fig. 1. Actuarial reoperation-free survival rate in patients undergoing open mitral commissurotomy.

Fig. 2. Actuarial reoperation-free survival rate in patients undergoing open mitral commissurotomy.

*P < 0.001
with regurgitation. Therefore, in postoperative management of patients undergoing OMC, it is mandatory to know preoperative anatomical findings of the stenosed mitral valve.

REFERENCES