Abstract: We present a review of our experience with combined surgical therapy with endovascular stent repair and conventional revascularization of the supraaortic and/or visceral/renal arteries (hybrid procedure) in the treatment of thoracoabdominal aortic aneurysms and dissections. We followed 20 patients (7 women, median age 58.3 years, age range 37-68 years) prospectively. Severe comorbidity was present in 7 patients, 13 patients had previous aortic surgery. The median diameter of the thoracoabdominal aneurysm was 74.4 mm (Crawford I, 1 patient; II, 11; III, 7; V, 1), and 13 patients had previous aortic surgery. After visceral and renal revascularization, three stent grafts were implanted on average. Follow-up examination was every 6 months. The median follow-up was 174.5 days (15-375 days). The 30-day mortality was 10% and the neurological complication rate was 10% with incomplete paraparesis in 2 patients. Computed tomography scanning revealed six endoleaks in 5 patients (Type Ia, 3 patients; Ib, 1; II, 1; III, 1) and four visceral graft occlusions in 4 patients (right renal artery, 2 patients; left renal artery, 2). Endoleaks (Ia, Ib, and III) were surgically revised. During follow-up, 3 patients died. The remaining patients recovered to full activity. A significant aneurysm shrinkage was found in 5 patients. Two patients developed secondary endoleaks. Our results show that hybrid procedure might be
an alternative to conventional thoracoabdominal repair of the aorta, especially in high-risk patients.