Letter to the Editor

An unusual experience with posterior pericardiotomy

Cem Yorgancıoğlu*, Bora Farsak, Hilmi Tokmakoğlu, Serdar Günaydın

Department of Cardiovascular Surgery, Bayındır Medical Center, Ankara, 06520 Turkey

Received 5 July 2000; accepted 11 September 2000

There are some recent reports on the effect of posterior pericardiotomy to the postoperative supraventricular tachyarrhythmias (SVT). Although controversy still exists on its effect on atrial fibrillation, its clinical benefit on pericardial tamponade is satisfactory [1–3]. To test its effectiveness on SVT we started performing posterior pericardiotomy where we experienced an unusual case on the 29th patient.

A 55 year old man with left main coronary stenosis besides two vessel disease, normal ventriculography and ejection fraction 65% was operated in standard fashion with a roller pump, non-pulsatile flow (2.0–2.4 l/min), Polystan® membrane oxygenator, 32°C systemic hypothermia, single cross clamp, initial antegrade + retrograde cold blood cardioplegia, repeated cold retrograde blood cardioplegia every 20 min, and a hot shot before the removal of the cross clamp. LIMA grafting to the LAD and sequential saphenous graft to first diagonal, intermediate and obtuse marginal arteries were performed.

After an uneventful operation (× clamp time 42 min, total perfusion time 58 min) the patient was placed in the ICU ward where the patient deteriorated with lateral ST elevation and multifocal ventricular arrhythmias, which did not respond to the medical therapy, continued with ventricular fibrillation (VF), which also did not respond to defibrillation. The patient returned to the operating room urgently and re-explored. After reopening the sternum VF had been over come following the first defibrillation with internal paddles. The hemodynamics returned to normal in a short time with positive inotrops followed by ST normalization. All the bypass grafts were patent, nothing unusual was observed. Following haemostasis sternum was wired again. But by the time of cutaneous sutures, the ST elevation relapsed, the hemodynamics failed quickly, VF re-occurred. The sternum was reopened in a short time and the heart was defibrillated again. Grafts were patent again, but an ischaemic colour change was observed on the lateral and posterior aspect of the heart. On careful examination we had observed that a segment of saphenous graft (just before and after the intermediate artery anastomosis) and left atrial appendage protruded from the posterior pericardiotomy. The saphenous graft was squeezed by the edges of the posterior pericardiotomy incision. After closing the posterior pericardiotomy incision by primary sutures, and insertion of an intra-aortic balloon from left femoral artery the patient was taken to the ICU ward again. Reperfusion arrhythmia was controlled by amiodorone infusion. Postoperative peak CK-MB (mass) value was 42 ng/ml and Troponin T was 4.85 ng/ml, no Q waves were noted in electrocardiograms. Following an uneventful 5 days in the ICU the patient was discharged in his 10th postoperative day with lateral hypokinesia in echocardiography taken on the 8th day postoperatively.

Posterior pericardiotomy is effective on early and late pericardial tamponade, can be effective on the incidence of SVT, but after this case in our opinion, should carefully be used with patients in whom posterior wall revascularization was performed especially by sequential grafting.

References

