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The Efficiency of Surgical Subxiphoid Pericardial Drainage and Percutaneous Pericardial Drainage in Pericardial Effusions Associated with Cardiac Tamponade

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Abstract

Objectives: The optimal management for pericardial effusions with cardiac tamponade remains controversial. This study compares the results after two commonly performed techniques: subxiphoid surgical pericardial drainage (DPSS) and percutaneous catheter drainage (DPPK).

Material and methods: We conducted a 5-year retrospective study to analyse the outcome after DPSS and DPPK in patients with non-traumatic pericardial effusions with cardiac tamponade.

Outcomes: Patients with non-traumatic cardiac tamponade were treated with DPSS (N=138) and DPPK (N=54). There were no statistical differences between groups regarding: age, drainage volume and duration of drainage. The etiology was malignant in 72 patients and benign in 120 patients. The 2-year survival was statistically non-significant: 55,1% in the surgical group and 44,4% in the percutaneous group, but there was a slight prevalence of malignant diagnosis in the first group (38% versus 35%). The 1-year survival in patients with proved cyto-/hystological malignancy was statistically poorer than in patients with malignant diagnosis and with both negative cytology and hystology (7% versus 33%). The 1-year freedom of re-intervention for recurrence of pericardial effusion was statistically better in the surgical group as in the percutaneous one (92.8% versus 79,6%).

Conclusions: DPSS and DPPK can be both safely performed. DPSS appears to decrease intervention-necessitating recurrence, but it brings a minimal advantage for the malignant diagnosis over cytology alone.

Key words: cardiac tamponade, subxiphoid pericardial drainage, percutaneous pericardial drainage, pericardial cytology, pericardial histopathology

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