

**Obstruction of systemic veins: early and medium term results of percutaneous interventions**

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**Background.** Few data exist concerning mid term results of interventions for stenoses of systemic veins. We review our experience in patients with and without congenital heart disease (CHD) over a 10 year period.

**Methods.** Since January 2000 to December 2010, 28 catheterizations were performed in 24 patients (12 females) in order to treat stenoses or obstruction of systemic veins. 12 patients had repaired CHD, 2 had had cardiac transplantation, the remaining 10 patients had chronic diseases needing permanent central venous catheters. Catheterization was performed to treat superior vena cava syndrome (n=16) or to allow access to the heart (n=12). Mid term results were evaluated by cardiac catheterization or CT scan.

**Results.** Median age and weight of patients at catheterization were 6 years (range 0.1-16 ) and 15 Kg (range 2-60). The affected vessels were: superior caval vein (n=10), innominate vein (n=5), subclavian vein (n=2), inferior caval vein (n=6), femoral veins (n=9); 6 patients had multiple lesions. Procedures included 4 simple dilatations and 24 stenting with or without pre- or post-dilatation. In total 39 stents were implanted. In all but 2 patients, it was possible to treat the lesion. There were 2 procedural complications (8.3%): 1 perforation of superior caval vein leading to cardiac tamponade and one acute stent occlusion without sequelae. Two late deaths occurred, due to CHD (1) or prematurity (1). At a median follow-up of 3 years (1.5-8) patients were reevaluated with catheterization (n=12) or CT scan (n=10). We observed 4 complications of stenting (10%): 2 occlusions, 1 fracture, 3 restenoses.

**Conclusions.** Interventional treatment of obstructed systemic veins offers good immediate results and a low incidence of complications. However, stent thrombosis or intrastent growth raise concern on mid term results.