

assessing the incidence of procedure complications that require delayed hospitalization following discharge of outpatients undergoing percutaneous nephrostomy.

Patients and Methods: the criteria used for outpatient discharge following percutaneous nephrostomy were the absence of shaking chills, hypotension, uncontrolled hypertension, and dyspnea in an alert and cooperative patient who was accompanied by motivated and capable home care providers. Follow-up consisted of direct discussion with referring physicians, and review of medical charts, imaging films, and image-guided procedure reports for all ($n=23$) outpatients who were discharged home following percutaneous nephrostomy at our institution between July 1991 and June 1994. The initial 17 patients were evaluated retrospectively whereas the last 6 patients were followed prospectively. Patient age ranged from 20 to 77 years with a mean of 49. Patients with benign disease ($n=12$) and malignancy ($n=11$) were treated. The spectrum of procedure complexity ranged from external percutaneous nephrostomy ($n=15$) to external nephroureterostomy ($n=7$) and internal nephroureteral stent placement ($n=1$) with tube size ranging from 8 to 12 F. No patients had coagulopathy but five patients had infected urine at the time of the procedure.

Results: none of the outpatients who were discharged after meeting post-procedure criteria died as a result of procedure complications or required later hospital admission for observation or treatment of peri-procedure complication.

Conclusion: the results suggest that the post-procedure discharge criteria described herein are effective in maintaining the safety of the outpatient percutaneous nephrostomy process.

Combined use of the blunt needle and carbon dioxide for percutaneous nephrostomy

S. R. Kerns, J. G. Caridi and I. F. Hawkins Jr

Department of Radiology, University of Florida, Gainesville, USA

SUMMARY. We describe a modified method for percutaneous nephrostomy which combines using carbon dioxide to 'opacify', and an 18-gauge blunt needle to enter, targeted posterior calyces. This technique was successfully used during a clinical trial in 50 selected patients. Technical success was 100% with a very low complication rate. This method, as well as its possible advantages and disadvantages, will be discussed.

Embolization of ruptured iliac artery aneurysms

D. A. Gould, R. D. Edwards and S. P. Sinha

Department of Radiology, Broadgreen Hospital and Royal Liverpool University Hospital, Liverpool UK

SUMMARY. Spontaneous rupture of iliac artery aneurysms is uncommon but is associated with a high surgical mortality. We report two cases which were treated successfully by tran-

scatheter embolization and review the literature.

Percutaneous transluminal angioplasty for treatment of subclavian and coronary artery steal syndrome

S. J. Savader J. R. Ressar, R. L. Reichle and F. A. Osterman Jr

Department of Radiology, Division of Cardiovascular and Interventional Radiology, Department of Medicine, Division of Cardiology, The Johns/Hopkins Hospital, Baltimore, USA

SUMMARY. Percutaneous transluminal angioplasty is a well described technique for revascularization which has gained increasing acceptance for use in the aorta and branch vessels. We present a case in which a patient with a left internal mammary artery (LIMA) graft and proximal left subclavian artery stenosis, experiencing both coronary and subclavian artery steal, was successfully treated with balloon angioplasty.

To catch a swan: percutaneous removal of a Swan-Ganz catheter sutured to the pulmonary artery bifurcation

J. M. Ferguson and J. H. Reid

Department of Radiology, Royal Infirmary of Edinburgh, Edinburgh U. K.

SUMMARY. Inadvertent fixation of a Swan-Ganz catheter to a mediastinal structure with a suture during cardiac surgery is a rare but recognized complication. We describe a method for retrieving such a catheter with an Amplatx Goose Neck Snare.

Inferior vena caval thrombosis treated with prolonged thrombolysis and caval filtration

D. F. Walter, A. P. Moody, P. C. Rowlands. and R. D. Edwards

Departments of Radiology and Vascular Surgery, Royal Liverpool University Hospital, Liverpool, UK

SUMMARY. We report a case of inferior vena caval thrombosis which was treated successfully by prolonged intrathrombic infusion of recombinant tissue plasminogen activator, in combination with a temporary caval filter. Complete clot lysis occurred after 5 days of therapy without major complications. The current status of treatment of inferior vena caval thrombosis is briefly reviewed.