
Abstract:

Background: Hemodialysis (HD) catheters can get stuck in the central vein after long-term use and their removal might become difficult especially in patients with fibrosed or occluded central veins. Herein, a breakthrough technique is reported for the easy removal of a stuck HD catheter from the central vein.

Case Report: Attempts were made to remove a tunneled double-lumen HD catheter from the central vein of a 74-year-old woman, only to find that the catheter was stuck. The patient was transferred to the operating room and a skin incision was made in the neck and the subcutaneous portion of the HD catheter was retrieved from the tunnel. Under fluoroscopy, a guide wire was inserted into one lumen of the HD catheter and advanced into the right atrium beyond the catheter tip. A 5 mm Â— 4 cm balloon angioplasty catheter was then inserted into the HD catheter lumen over the guide wire and advanced into the jugular vein junction of the HD catheter around the thoracic inlet. The balloon was inflated to its maximum dimension and pressure. This endoluminal dilatation of the HD catheter was continued by deflating the balloon and then pushing the angioplasty catheter 4 cm at a time towards the tip of the HD catheter in the right atrium. After a second balloon angioplasty catheter of 6 mm Â— 4 cm was used to expand the entire segment of the other lumen, the
HD catheter was pulled out easily from the central vein without any resistance.

Comments: The endoluminal balloon dilatation of the HD catheter not only separates the stuck HD catheter from the adherent vein by breaking the adhesions between them, but also expands the vein simultaneously, thus enabling easy removal of the HD catheter.