Pressure Ulcers due to a Tunneled Central Venous Catheter in a Patient on Chronic Maintenance Hemodialysis

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Introduction

We describe a rare complication given by tunneled central venous catheter (CVC) in a 95-years-old woman on chronic maintenance hemodialysis (HD). The cause of end-stage renal disease was hypertensive nephrosclerosis. She suffered from ischemic heart disease and mild cognitive impairment. Her weight was 85.9 lb (39 kg), resulting in a body mass index (BMI) of 18.1 kg/m². She started hemodialysis in 2002 at age of 79-years-old with a dialysis regimen of 3 hours and a half, three days a week.

Dialysis was performed via right jugular tunneled CVC since the beginning of renal replacement therapy. Soon after the placement of CVC, a proximal native arteriovenous fistula (AVF) was created on the right arm but failed to support HD due to early fistula failure. Over the years, CVC occlusion leads to the replacement of the malfunctioning catheter after 3 and 9 years from its insertion.

On evaluation, the skin over the cuffed tunneled catheter appeared “fenestrated” leading to the exposure of the underlying device, including the Dacron...
The best way to avoid catheters-related pressure ulcers is periodic catheter site rotation [4]. Since this procedure is unfeasible with tunneled CVC, prevention relies on the placement of native or graft AVF that have been associated with lower rates of complications, morbidity, and mortality compared to CVC [5]. Treatment choice of catheters-related pressure ulcers is CVC replacement with a creation of new tunnel. This procedure reduces the risk of catheter-related bloodstream infections and accidental catheter removal, which may expose the patients to life-threatening venous air embolism and/or hemorrhagic events.

Disclosure

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References