Noncuffed catheters (NCC) are often used for incident hemodialysis (HD) patients without a functional vascular access. This, unfortunately results in frequent catheter-related complications such as infection, malfunction, vessel stenosis, and obstruction, leading to loss of permanent central venous access with superior vena cava obstruction” Shanmuganathan et al (2018).

Abstract:

BACKGROUND: Noncuffed catheters (NCC) are often used for incident hemodialysis (HD) patients without a functional vascular access. This, unfortunately results in frequent catheter-related complications such as infection, malfunction, vessel stenosis, and obstruction, leading to loss of permanent central venous access with superior vena cava obstruction. It is important to preserve central vein patency by reducing the number of internal jugular catheter insertions for incident HD patients with a functional vascular access. We sought to achieve this by introducing in-patient intermittent peritoneal dialysis (IPD) as bridging therapy while awaiting establishment of long-term vascular access for HD patients.

METHODS: Incident HD patients without permanent vascular access encountered from January to December 2014 were included in this study. Patients were divided into 2 groups: Group 1 were encountered within 6 months prior to introduction of in-patient IPD bridging therapy in substitution of noncuffed catheter (NCC) insertion while awaiting maturation of permanent vascular access. Group 2 were encountered within 6 months after the introduction of this policy. The number of NCC and peritoneal dialysis catheter insertion, along with catheter-related infections were evaluated during this period.

RESULTS: Approximately 450 patients were distributed in each group. We achieved 45% reduction in internal jugular catheter insertion from 322 to 180 catheters after policy change. This led to a significant drop in catheter-related blood stream infection (53%, P <0.001). On the other hand, 30% more peritoneal dialysis catheter were inserted to accommodate our IPD bridging therapy. CONCLUSIONS: The introduction of IPD as bridging therapy while awaiting maturation of permanent vascular access significantly
reduced the utilization of NCC in incident HD patients and catheter-related bloodstream infection. With this, it is our hope that it will contribute to the preservation of central vein patency.

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Reference:


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