

## **Abstract**

**Background:** End-stage renal disease (ESRD) is an irreversible loss of kidney function that patients need permanent treatment to maintain their lives. Among ESRD treatment methods, dialysis is considered as the primary and common approach. Providing vascular access with a cuffed catheter is one of the common but complicated methods used.

**Aim:** The present study was conducted to investigate the complications caused by cuffed dialysis catheter in dialysis patients referred to Imam Khomeini Hospital in Ardabil in the second half of 2021.

**Materials and Methods:** In this cross-sectional descriptive study, all patients admitted to Imam Khomeini Hospital in Ardabil with complications caused by cuffed catheters in the second half of 2021 were examined. The required information was extracted from the patients' files and recorded in the checklist prepared by the researcher. Finally, the relevant information was evaluated by inserting it into SPSS version 22 software based on the objectives of the study.

**Results:** Of the 66 patients studied, 51.6% were men and their average age was  $62.74 \pm 12.88$ . The right jugular vein, with a relative frequency of 80.3%, was the most common site of catheter insertion in the studied patients. The average survival time of the catheter after implantation was 299.5 days. The two complications of systemic infection and thrombosis caused by the catheter were the most common complications caused by the catheter in patients with cuffed dialysis catheters with the frequency of 43.9 and 31.8 percent of people, respectively. Comparing the frequency of any of the complications reported in the present study in age groups, gender and different underlying diseases was not significant and had no significant relationship with these cases.

**Conclusion:** The results of the present study showed that infection and thrombosis caused by the catheter in patients undergoing hemodialysis with a cuffed dialysis catheter are two relatively common complications, which were not related to any of the factors of age, gender and underlying disease of the patients. Therefore, it is necessary to take special measures to prevent these two complications

**Keywords:** Hemodialysis, cuffed catheters, complications.