

## ABSTRACT

**Background:** Chronic Kidney Disease (CKD) poses a significant and growing burden in the Philippines, where limited access to dialysis and vascular care remains a major challenge. Arteriovenous fistula (AVF) creation is the preferred vascular access for hemodialysis due to its superior long-term patency and lower complication rates. However, local data on AVF outcomes, particularly in Mindanao, remain sparse. Understanding the clinical characteristics and outcomes of CKD patients undergoing AVF surgery is crucial for improving vascular access strategies and guiding surgical care in resource-limited settings.

**Objective:** This study aimed to determine the clinical profiles and post-operative outcomes of CKD patients following AVF creation over a three-year period at a tertiary training hospital in Southern Philippines.

**Methods:** A retrospective descriptive study was conducted using total enumeration of CKD patients aged 19 years and above who underwent elective outpatient AVF creation at Southern Philippines Medical Center between January 1, 2021, and December 31, 2023. Data were extracted from medical records, including sociodemographic variables, comorbidities, preoperative vascular mapping results, intraoperative findings, and postoperative outcomes such as AVF maturation, complications, and functional patency. Descriptive statistics were generated using SPSS version 28.

**Results:** A total of 169 patients were included, with a mean age of 49.1 years and a male predominance (62.7%). Most patients were from urban areas (92.3%) and classified under low socioeconomic status (75%). Hypertension (46.7%) and diabetes (29%) were the most common comorbidities. All patients had favorable preoperative vascular profiles, with adequate vessel diameter and flow. Intraoperatively, no cases of stenosis, calcification, or dissection were noted, and a post-anastomosis thrill was observed in 99.4% of cases. AVF maturation was achieved in 82.2% of patients within a mean time of 6.1 weeks. Functional patency was noted in 91.7% of cases, while 16.6% required revision or re-intervention. The most common complication was failed maturation (13.6%), with other adverse events occurring in fewer than 5% of cases.

**Conclusion:** The study demonstrated high AVF maturation and functional patency rates, supported by standardized preoperative assessment, optimal intraoperative conditions, and structured follow-up. These findings highlight the effectiveness of current surgical and perioperative protocols at the institution and provide a valuable benchmark for AVF outcomes in similar low-resource healthcare settings in the Philippines.