

Surgery for Chronic Renal Failure Patients: Trends, Outcomes and Complications

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Background: Vascular access surgery is needed for chronic renal failure patients who require regular hemodialysis to sustain their lives. Access surgery could be central line, graft fistula and native arteriovenous fistula (AVF), the latter has the best outcome in terms of least complication and durability. Therefore, hemodialysis through an AVF should be the main target in hemodialysis centers.

Objective: To evaluate the trends of access surgery, its outcome and complication rate.

Design: A Retrospective Descriptive Study.

Setting: Hemodialysis Centers, Ministry of Health, Kingdom of Bahrain

Method: Three hundred six chronic renal failure patients were receiving regular hemodialysis until 15 May 2014 were included in the study. All the necessary data were collected through the Dialysis Access Nurse Coordinator. A specific modulated questionnaire was designed for this study.

Result: Three hundred six chronic renal failure patients are on regular hemodialysis until 15 May 2014. One hundred thirty-two (43.1%) were more than 60 years, and one hundred twenty-six (41.2%) were between 40 and 60 years. One hundred eighty-nine (61.8%) were receiving dialysis through AVF, eighty-five (27.7%) through central lines and thirty-two (10.5%) through graft fistulae. Fifty-seven (18.6%) patients were started on hemodialysis by fistula first. Twenty-eight (9.2%) patients had vascular access related complications; the most common was aneurysm.

Conclusion: The trends and outcome of the hemodialysis access surgeries in the studied population are consistent with the Kidney Disease Outcome Quality Initiative (KDOQI) guidelines. The main complication was arteriovenous aneurysm formation.

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