

Complications during hemodialysis in arterio-venous fistula versus temporary vascular access

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Abstract

Background: Dialysis is procedure that removes excess fluid and the toxic end products of metabolism. The major forms of dialysis are hemodialysis, and peritoneal dialysis. Access to the blood circulation is achieved by the use of central venous catheter or artificial arteriovenous fistula.

Objective: To detect and compare prevalence of complications occurs in uremic patients using central venous catheter or arteriovenous fistula in dialysis unit in Al-Kadhimiya Teaching Hospital.

Patients and methods: One hundred patients with renal failure (chronic or acute) undergoing hemodialysis were questioned and examined for the Complications occurred during or after the hemodialysis process using arteriovenous fistula or temporary vascular access.

Results: The results showed significant of fever and blood flow obstruction in temporary

vascular access (<0.05) as a complications in hemodialysis. Other complications such as hepatitis (B&C), hypotension, exit site infection, nausea, itching, muscle cramp, vomiting, backache, fainting and disequilibrium syndrome are similar in arteriovenous fistula and temporary vascular access.

Conclusion: The main complications during hemodialysis in this study were fever, malfunction of the catheter, and exit site infection in catheter more common in temporary Catheter than arteriovenous fistula so advice to do arteriovenous fistula before end stage renal disease

Keywords: Hemodialysis, arteriovenous fistula and temporary catheter.

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Introduction

Dialytic therapy should be started when conservative management fails to maintain the patient in reasonable comfort. Usually, dialysis is required when the glomerular filtration rate drops to 5—10 ml/min. it is both unnecessary and risky to adhere to strict biochemical indications. Broadly speaking, the development of uremic Encephalopathy, neuropathy, pericarditis, and bleeding diathesis are indications to start dialysis immediately. Fluid overload, congestive heart failure, hyperkalemia, metabolic acidosis, and hypertension uncontrolled by conservative measure are also indications for starting patients

patients on dialysis therapy⁽¹⁾.

Dialysis is procedure that removes excess fluid and the toxic end products of metabolism. Dialysis is usually prescribed to patients with significant impairment of renal function resulting from acute or chronic renal failure. It is also used occasionally to remove ingested drugs and other toxin in patients who may have normal renal function⁽²⁾.

About 62.9% of patients with end stage renal disease were undergoing hemodialysis, 8.7% were being treated with peritoneal dialysis, and the rest were being sustained by functioning kidney transplant⁽³⁾.

Although the basic principles of hemodialysis have not changed a great deal in the last 20 years, the technology has dramatically improved. Most patients dialyze three times per week⁽⁴⁾.

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