Arteriovenous Fistula Aneurysm

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Background: Arterio-venous fistula (AVF) provides the best functional patency for patients on regular hemodialysis (HD). Nevertheless, complications such as AVF aneurysms, steal syndrome, venous hypertension and infections are not uncommon.

Objective: To evaluate the trends in AVF aneurysm formations, prophylaxis and treatment options.

Design: A Retrospective, Descriptive Study.

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

Method: Two hundred and eleven patients on hemodialysis via arterio-venous fistula and arterio-venous graft were included in the study.

Result: Two hundred and eleven patients were on hemodialysis via arterio-venous fistula and arterio-venous graft. Thirty (14.22%) patients developed arterio-venous fistula aneurysm. Sixteen (53.33%) were males, and the mean age was 57 years. Eleven (36.66%) patients had excision of the aneurysms with interposition graft. Six (20%) patients had excision of the aneurysms with new fistula formation. Six (20%) patients required a change of the cannula insertion site while the remaining 7 (23.33%) patients were waiting for their scheduled date of surgery.

Conclusion: Aneurysm formation is the most common complication in post AVF patients on regular HD. AVF aneurysms are at high risk of rupture and fatal hemorrhage. Surgical treatments could safely be performed for high risk aneurysms. The most common cause of aneurysm formation is repeated punctures at the same site.

Bahrain Med Bull 2016; 38 (3): 142 - 144