

Factors associated with renal failure among patients attending dialysis centers in Mogadishu, Somalia- Case control study

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Introduction

Chronic Renal Failure is a public health problem that has serious impact on mental and psychological health of patients undergoing hemodialysis and it is an important cause of morbidity and mortality globally. Understanding the risk factors can help identify preventive strategies. Aim: this study aimed to determine the main risk factors associated with renal failure among patients attending the dialysis centers in Mogadishu.

Results

Study results indicated that the most common risk factors related with renal failure were hypertension (cases 54.48% vs controls 8.21%) and diabetes mellitus (35.82% vs 16.42%), Kidney stone (11.19% vs 9.70%), urinary tract infection (73.89% vs 61.19%) and former smoker it was (26.12% vs 3.73%). The study revealed that gender, age, employment status and house household income were highly significant P-value (<0.0001) as a socio-demographic factor. This study also shown that hypertension is considered the main risk factor (OR = 13.382), recurrent UTI (OR = 1.794), diabetes disease (OR: 2.841), former smoking (OR = 9.121) were more likely associated with renal failure

Methodology

It was hospital based case-control study conducted between November 2018-October 2019 (N = 268). Epidemiological Information software used at 95% CI with power 80% and based on one-to-one case to control ratio with the sample size was (n = 134 cases) diagnosed renal failure and (n = 134 controls) who were selected from outpatient department. Data was collected using a questionnaire including socio-demographic, medical history and life style factors.

Conclusion

study findings indicated that history of hypertension, diabetic mellitus, recurrent UTI, and former smoking as well as family history were significant factors closely associated with renal failure. This study suggests that most of the identified risk factors are preventable by early screening of highly risk people, routine checking of blood pressures, blood sugars and compliance with medications as a preventive strategy against kidney diseases and encourage health life style.

Keywords: renal failure, dialysis centers, hypertension.