



Environment In Tabuk Area, Saudi Arabia: Is it Incriminated in The Development of End Stage Renal Disease?

by

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INTRODUCTION

Kingdom of Saudi Arabia (KSA) is a country with marked rise in prevalence and incidence of end stage renal disease (ESRD), The prevalence of ESRD on hemodialysis (HD) in tabuk area is 350 per million populations. Etiology of ESRD is unknown in 33% of HD patients. However, it is only 3.9% of HD patients in the United States. *Tabuk area (108,000 km²) is located in the north-west coast of KSA.*

OBJECTIVE

Is Is to investigate if the environment in Tabuk area is incriminated in the development of ESRD with unknown etiology

METHODS

A total number of 115 patients with an unknown etiology of ESRD as well as 110 controls were interviewed using a structured questionnaire including information about environmental factors predicted to cause ESRD as family history, residence, insecticide handling, and water pollution.

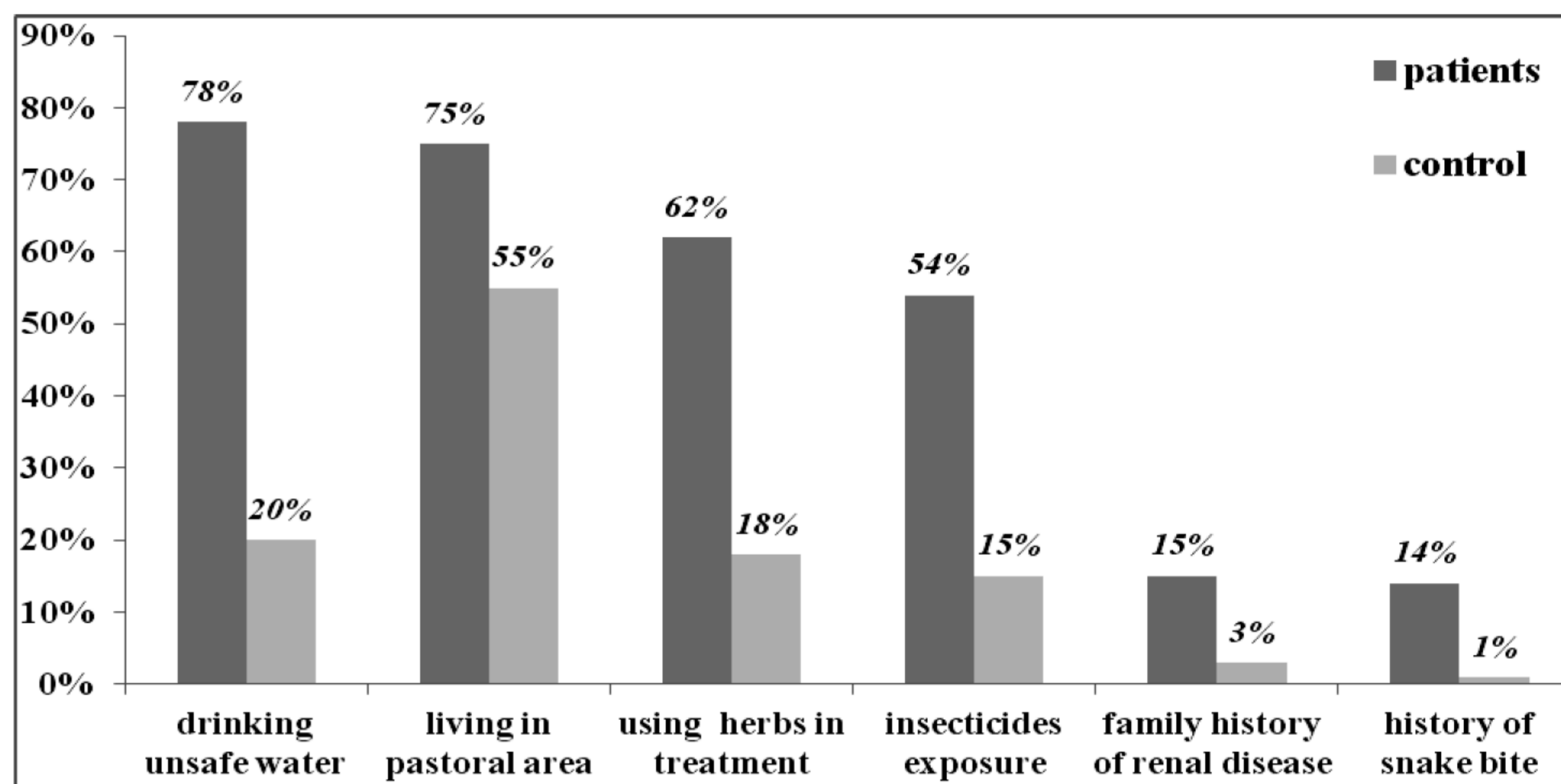
RESULTS

males were (65%) in patients group & (55%) in control group, persons in control group were slightly older than patients (45±7 Vs 44±11 years) Distribution of HD patients by residence showed that most patients lived in pastoral areas (75%), compared to (55%) in controls (p<0.001). Drinking unsafe water was reported in (78%) of patients and (20%) of controls (p<0.001). Family history of renal disease was found among (15%) of patients and (3%) of controls (p<0.001). contact to insecticide & using traditional herbs for treatment were more among patients than controls (54% Vs 15%) and (62% Vs 18%) (p<0.001). History of snake bites were (14%) among patients but only (0.9%) among controls (p<0.5)

Clinical and anthropometric Data

	Patients n=115	Controls n=110	P
Males	75 (65%)	61 (55%)	0.20
Females	40 (35%)	49 (45%)	0.20
Age (years)	44 11	45 7	0.22
Weight (Kg)	65 6	69 5	0.51
BSA (m ²)	1.7 0.1	1.7 0.1	0.22
BMI (Kg/m ²)	23 3	24 4	0.06

BSA (body surface area). BMI (body mass index)



Environmental factors incriminated in development of ESRD

Conclusions & Recommendation

ESRD with an unknown etiology may be ascribed to environmental factors as, drinking unsafe water, exposure to insecticides and using herbs for treatment. **Recommendation:** Educational programs for common people should be strengthened. Encouragement of chemical treatment of insecticides so as not to harm people. Use of any herbs should be forbidden except under bureau of health regulation.

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