

*Original Article*

## Cross sectional Study about Risk factors of increase the chronic kidney disease (CKD) in Wadi Ataba City southern Libya.

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### Abstract

A retrospective study conducted in 2023 on risk factors for chronic kidney disease (CKD), in patients from Southern Libya (Wadi Ataba). The present study was focused on the relationship between a few disorders that have been linked to chronic kidney disease (CKD) and other diseases. The goal of the current study is to investigate the risk factors for chronic renal disease in the city of Wadi Ataba in southern Libya. The 27-questions questionnaire was used to gather the data, which were included categories such as personal information, health conditions, family history of diabetes, hypertension, and renal failure, questions regarding the abuse of analgesics and herbs, questions about energy drinks and their origins, and questions about lifestyle habits such as drinking water and source of them. 379 participants were interviewed. Response rate was 98 %. Among the patients in our samples, which found that the highest risk factors for CKD were hypertension (HT) at 28.5%, followed by diabetes mellitus (DM) and hypertension combined at 16.1%, and diabetes at 36.1%. One important finding of the current study is the increased association between diabetes and CKD. They represent about one third (29.1%).

**Key words:** CKD, risk factors, wadi ataba

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## Introduction

Chronic kidney disease defined as a gradual loss of kidney function (1) . the kidneys filter wastes and excess fluids from the blood, which removed in the urine. chronic kidney disease in advanced state can cause dangerous levels of fluid, wastes and electrolytes to build up in the body (2). there is a few signs or symptoms that occur according to severity of kidney damage like nausea, vomiting, loss of appetite, fatigue and weakness , sleep problem , urinating more or less and decreased mental sharpness , muscle cramps , swelling of feet , dry, itchy skin, high blood pressure and chest pain, most of this signs are nonspecific, it mean they can be cause by other illnesses(3). many diseases that cause chronic kidney disease include diabetes where 30-40% of diabetic patient are at risk of CKD, the second risk factor is hypertension, previous studies of ( planting et . al), reported that 70% of CKD patient have uncontrolled blood pressure. Other disease that may cause CKD as glomerulonephritis, inherited kidney disease , prolonged obstruction of

## Methodology

The present study designed to explore the risk factors of chronic kidney disease in Wadi Ataba city (southern Libya). The data collected from questionnaire which designed according to previous study, a questionnaire consisted of 27 questions, the collected data divided into personal informations, data about health

urine tract , some factor can be increase the risk of kidney disease like smoking obesity and family history of kidney disease, also old age and frequent use of some medication that can be damage the kidneys (4). Heart disease is the most common cause of death in the world , hearth disease is one of the risk factor in chronic kidney disease , and may be one of complication to CKD (5). nutrition habit and life style suggested to be one of the risk factor of CKD, increased salt intake may cause endothelial dysfunction , and increase in albuminuria particularly in obese adult. High protein intake laed to change in glomerular filtration rate it may accelerate CKD(6). The potential complication which resulted from CKD include pulmonary edema and fluid retention , hyperkalemia anemia, and hearth disease , damage of CNS decrease in immune response irreversible kidney damage which progress to renal failure(7). Early detection of CKD can prevent the disease from developing to renal failure(8)

disorders, and history of family of diabetes and hypertension and renal

failure ,some questions about the abuse of analgesic and herbs and energy drinking , the questionnaire include also some question about the quantity of

water which drinking and the source of them, Face to face interview was used to fill the questionnaire from tsawa hospital, and the patient asked to participate in the by using spss vesion 21.

study and they agreed to ask the questions, data collected continued from july 2023 to august 2023 . Then data analyzed statistically

## Results

This study aimed to investigate the prevalence of various health conditions among visitors to Tsawa Hospital, focusing on diabetes, hypertension, urinary tract infections (UTI), family history of renal disease, family history of diabetes, family history of hypertension, and obesity. data that collected through a questionnaire, and the results showed that the males experienced a marginally more impact than females (49.3 vs. 50.7%). The survey indicates a higher prevalence of diabetes among males (19%) compared to females (17.5%). However, the situation changed when they asked about any family history of diabetes (33.8%) in females and (28%) in males. for the high blood pressure, it was near to each other (14.77%) in males and (13.7%) in females. The survey identified 212 respondents with a family history of

hypertension, including (23.2%) males and (32.7%) females. In terms of UTI a number of the 128 respondents, comprising 74 males (19.5%) with 54 females (13.2%), reported positive cases. on the other hand, 251 participants 118 males (31.1%) and 133 females (35%), indicated no history of UTIs.

Concerning obesity, 68 respondents reported positive cases with 28 males (7.3%) and 40 females (10.55%). Conversely, 311 individuals, including 164 males (43.27%) and 147 females (38.78%), indicated no history of obesity. The data which collected through a questionnaire, and the results are presented in the following tables:

Items		Answer		Total
		yes	no	
diabetes	male	72	120	192
	female	65	122	187
Total		137	242	379
hypertension	male	56	136	192
	female	52	135	187
Total		108	271	379

UTI	male	74	118	192
	female	54	133	187
Total		128	251	379
Family history of renal disease	male	40	152	192
	female	27	160	187
Total		67	312	379
Family History of diabetes	male	106	86	192
	female	128	59	187
Total		234	145	379
Family history of hypertension	male	88	104	192
	female	124	63	187
Total		212	167	379
OBESITY	male	28	164	192
	female	40	147	187
Total		68	311	379

**Table 1** The table illustrates the distribution of health conditions among male and female participants, providing

insights into the prevalence of each condition within the surveyed population at Tsawa Village Hospital

### Discussion

The study was a random survey in Wadi Ataba city of southern Libya, the aim of study was to identify the risk factors of CKD. the number of participant in study was 379, Response rate was 98 %. CKD was slightly more prevalent in males than females (54.5 vs 45.5%). This is in contrast with other studies(9). Studies have indicated that male gender is associated with faster progression CKD and risk of death in the dialysis patients. (10,11,12)

. One important finding of the current study is the increased association between diadetes and CDK. They represent about one third (29.1%).

According to united state renal data system, the prevence of CKD was more among male

Many previous studies focused on studying the association between chronic diseases such as diabetes, hypertension, and chronic kidney disease.

## Conclusion

CDK followed by both hypertension and diabetes were the most reported diseases. A significant portion of the patients were diabetic and UTI patient.

This apparent association requires more investigations. As there are many different risk factors for CKD, such as chronic disease and eating habits, regular checks of kidney function is highly recommended.

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