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Yobe State Zone c CKD Etiology and Management

Made by:Abdullahi Ibrahim Umar
Faculty of Pharmacy,Kalinga University
Naya Raipur (C.G)Indian.

Abstracts
Chronic Kidney Disease (CKD) has emerged as a significant public health challenge globally, including in Zone C of Yobe State, Nigeria. This abstract presents an overview of the etiology and management strategies for CKD in this specific region.
The etiology of CKD in Zone C of Yobe State is multi factorial, with common contributing factors being the CKD-U [chronic kidney disease of undetermined origen] other traditional CKD risk factors including hypertension, diabetes mellitus, glumerulonephrititis, and obstructive uropathy are implicated, however, environmental factors such as limited access to clean water and sanitation, as well as cultural practices, may play a role in the prevalence of CKD.
Management of CKD in this region requires a comprehensive approach that addresses both prevention and treatment strategies. Prevention efforts should focus on early detection and management of risk factors such as hypertension and diabetes through community-based screening programs and health education initiatives. Furthermore, interventions to improve access to clean water and sanitation infrastructure can help mitigate environmental risk factors, active reachers on CKD-U is necessary.

Chapter 1

Introduction
CKD" stands for Chronic Kidney Disease, a condition characterized by gradual loss of kidney function over time. This condition affects millions of people worldwide and can lead to serious health complications if not managed properly.

Symptoms

a. Dry and Itchy Skin
b. Weakness
c. Bubbly
d. Puffy eyes
e. Swelling of hands,feet,ankle
f. Trouble of Sleeping
g. Loss of appetite
h. Muscle Cramps

Need to pee more often

Stage of Kidney Damage

Stage 1: Kidney damage with normal or increased GFR (GFR > 90 mL/min)
Stage 2: Mildly decreased GFR (GFR 60-89 mL/min/1.73 m^2).
Stage 3: Moderately decreased GFR (GFR 30-59 mL/min/1.73 m^2).

Stage 3a (GFR 45-59 mL/min/1.73 m²) and Stage
3b (GFR 30-44 mL/min/1.73 m²).
Stage 4: Severely decreased GFR (GFR 15-29 mL/min/1.73 m²).
Stage 5: Kidney failure (GFR < 15 mL/min/1.73 m²)

Pathophysiology Of CKD

1. Glomerular Damage
2. Tubulointerstitial Injury
3. Vuscular Change
4. Renin- Angiotensin Aldosterone System
5. Inflammation and Oxidation
6. Hormonal Imbalance
7. Immune Dysfunction
8. System effects

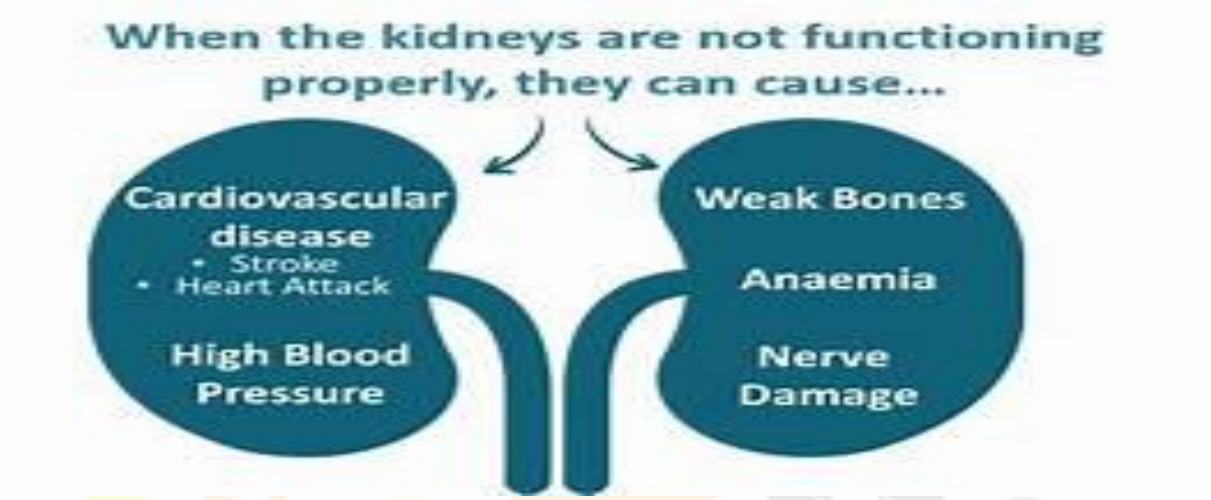

Fig1 Pathophysiology

Risk Factors Of CKD

Chronic Kidney Disease (CKD) can be influenced by various risk factors, including:

i. Smoking
ii. Diabetes
iii. Hypertension
iv. Heart Disease
v. Family History
vi. Obesity
vii. Age 60+

Chapter 2

Literature review

Overview Etiology CKD Yobe State Zone c

The etiology of Chronic Kidney Disease (CKD) can vary widely, as it can be caused by a multitude of factors. Some common causes and risk factors include:
Especially In particular Area Zone Yobe state Nigeria.

a. Hypertension
b. Diabetes
c. Heavy Metal From Water Used for drink
d. Chemical Especially Agricultural Contaminated with Over Used Pesticide
e. the use of non-steroidal anti-inflammatory drugs (NSAIDs).
f. Chemical Preservative Agent

Hypertension: Having both hypertension and CKD significantly increases the risk of complications such as heart disease, stroke, and kidney failure. Individuals with CKD are particularly prone to developing cardiovascular diseases due to the combined effects of hypertension and kidney dysfunction.

Diabetes: is one of the leading causes of chronic kidney disease (CKD). The relationship between diabetes and CKD is well-established, particularly in type 1 and type 2 diabetes. Here's how diabetes can lead to CKD.

Heavy metal: Glomerular damage Some heavy metals, such as lead and cadmium, have been associated with Glomerular damage, affecting the filtration function of the kidneys. This can result in proteinuria (excessive protein in the urine) and other signs of kidney dysfunction. This part of the main suspected Etiology of CKD In Zone c Yobe State because of their water in that area Contained more Heavy metal that leaded to Kidney Damage many people was Died do to the Water Pollutant, Many Minerals Contain in these water. Also Zinc and Selenium Cause CKD.

Chemical Agriculture by used pesticide:especially rural Area people used pesticide During their Farming System but Some Time they are Over Used Chemical do Avoid Parasite, but it is harm In Their Kidney Because they are Not proper wash During Cooked Food So After If Cause CKD, So is also part of the Suspected Causes CKD In Zone c Yobe State.

NSAIDs (non steroidal anti-inflammatory drugs):have been associated with the development of chronic kidney disease (CKD), particularly when taken over a long period or in high doses. NSAIDs are commonly used to relieve pain and reduce inflammation, but they can affect kidney function in several ways:

Chemical Preservative Agent:

In Zone C of Yobe State, Nigeria, where access to safe drinking water and food preservation methods may be limited, certain chemical preservatives could be used in food and beverages. Some common chemical preservatives include:

a) **Sodium Benzoate:** This preservative is commonly used in acidic foods and beverages to prevent microbial growth. Excessive intake of sodium Benzoate has been linked to adverse health effects, including kidney damage.
b) **Sulfites:** Sulfur-containing compounds like sulfites are used as preservatives in a variety of foods and beverages to prevent discoloration and microbial growth. High levels of sulfites in food or beverages may have nephrotoxic effects and contribute to kidney damage.
c) **Nitrites and Nitrates:** These compounds are often used in processed meats as preservatives and to enhance color and flavor. Consumption of processed meats containing nitrites and nitrates has been associated with an increased risk of CKD.
d) **Artificial Sweeteners:** Some artificial sweeteners, such as saccharin and aspartame, are used as sugar substitutes in food and beverages. Prolonged consumption of artificial sweeteners has been linked to various health concerns, including kidney damage.

Note: But all thees Etiology are Suspected up to now no any actually research that given the Etiology of CKD In Yobe zone c. only are continuous Investigation with International Collaboration USA and UK Sussex University.

Chapter 3

Management of CKD In Zone c Yobe State

Diagnosis:

Diagnosing a kidney disorder typically involves a combination of medical history evaluation, physical examination, laboratory tests, and imaging studies. Here is an overview of the diagnostic process for kidney disorders:

1. Medical History and physical Examination
2. Laboratory Test
3. Urine Test
4. Imagine Studies Ultrasound
5. Biopsy
6. GFR Measurement

Treatment:

The treatment of kidney disorders depends on the specific diagnosis, the underlying cause, and the severity of the condition. Here are some common approaches to the treatment of kidney disorders:

Medication:

a. Blood Pressure Control
b. Diabetes Management
c. Treatment of Infection
d. Dietary Change
e. Fluid Management
f. Life Style Modification
g. Dialysis
h. Kidney Transplant

Ways To Reduce CKD In Zone c Yobe State

These ways it decrease The Over Risk of CKD Follow as:

a. Local health Facilities
b. Government Health Department
c. Medical Professional
d. Health NGOs and Organization
e. Online Ressource
f. Community Health Outreach Program

Governor Buni Plan About CKD Zone c Yobe State

Governor Mai Mala Buni of Yobe State has announced plans for collaboration between the state government and renowned research institutions in the United Kingdom to address the issue of kidney failure in certain parts of the state. This initiative aims to sign a Memorandum of Understanding (MoU) with institutions such as the United Kingdom Research institutions, including York University, Crick Research institute, London School of Hygiene, the London University College, and University of Sussex.

During his visit to these institutions in London, Governor Buni met with esteemed epidemiologists and researchers to discuss potential partnerships for research and training. The focus will be on investigating the underlying causes of kidney failure affecting communities residing along the banks of the River Yobe in the northeastern region of Nigeria.

Chapter 4

Epidemiology

Chronic Kidney Disease (CKD) is a significant global health issue, with its prevalence steadily increasing worldwide. Epidemiological studies have shown variations in CKD prevalence across different regions and populations due to factors such as age, genetics, lifestyle, healthcare infrastructure, and access to medical care.

Concept of Frame Work

i. Establishing a framework for addressing CKD in Yobe State would involve several components:

ii. Public awareness campaigns to educate the population about CKD risk factors, symptoms, and preventive measures.
iii. Training healthcare professionals to diagnose and manage CKD effectively.
iv. Developing infrastructure for early detection and treatment of CKD, including screening programs and access to diagnostic tests.
v. Establishing guidelines for CKD management tailored to the local context, including considerations for the prevalent causes of CKD in the region.

Prevention

a. Public Awareness Campaigns
b. Screening Program
c. Promotion of Health Lifestyles
d. School Health Program
e. Community Engagement
f. Telehealth
g. Regular Check Up
h. Maternal and Child health Program
i. Government Policy and Regulation
j. Research and Surveillance
k. Partnership with NGOs

Chapter 5

Conclusion

addressing the etiology and management of CKD in Yobe State, Zone C, requires a multifaceted approach involving lifestyle modifications, effective control of underlying conditions such as diabetes and hypertension, medication management, regular monitoring, and patient education and support. Collaboration between healthcare providers, policymakers, and communities is essential in implementing comprehensive strategies to prevent and manage CKD in this region.

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Appendix

S/N	Certificate Obtained	Institution	Date
1	**International Conference** Management Control and prevention of Typhoid Diseases	Global Health care	16th November 2023
2	**International Conference** Cardiac Embolic stroke etiology risk factors and management	Kalinga University	15th -16 March 2024
3	**International Conference** Application of AI In Drug Discovery Process	Impact of Artificial Intelligence In Revolutionizing Pharmaceutical education and Research	18th Feb 2024
4	**International Conference** Antimicrobial resistance world wide	Journal Of Antiviral and Antibacterial	25th Oct 2023
5	**Workshop Handled Animals** Two days	Kalinga University	13th -13 Oct 2023
6	**Workshop Hand Sanitizer** Two Days	Kalinga University	4th -5th Oct 2023
7	**Seminar** Management Control and Prevention Of Typhoid Diseases	Gracious University	8th-9 September 2023
8	**Seminar** Management Control and prevention of Hepatitis B Viruses	Rungta College of pharmaceutical Science and Research	20th March 2024
9	**Internship** Central Instrumental facilities	Kalinga University Indian	23th May 2023- 6th July 2023
10	**Accepted Abstract** USA	USA	24th November 2024
11	**Accepted Abstract** UK	Paris	26th August 2023
12	**Accepted Abstract** Germany	Germany	7th -8 December 2023
13	**Accepted Abstract** Canada	Canada	27th Oct 2023
14	Accepted Abstract		27th October2023

	Russia		
15	**Accepted Abstract** Indunisia	Indunisia	16th Feb 2024
16	**Published** magazine Articles	Kalinga University	Section 2022-2023
17	**Clinical Outing** Two days	Glocal University	29th -30 November 2021
18	**Certificate Of Attendance**	FIP	1st December 2023