



Prevalence of Siruneeraganoigal [Kidney Diseases] among the Bore Well user in Mudaivaithanendal in Tuticorin [dt], Tamilnadu

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ABSTRACT

Kidney disease is a non-communicable disease. It can have serious consequences if it cannot be controlled effectively. Generally, the progression of kidney disease is from mild to serious. In India, many people depend on bore well water today because of the limited or no water supply from rivers and lakes. Almost every city is dependent on bore well water. Bore well water, then it is very important to purify the water for drinking and cooking purpose. Bore well water is usually hard and contains many harmful impurities which need to remove before drinking to stay healthy. Primary objective was to evaluate the prevalence of SiruneeragaNoigal (KIDNEY DISEASE) in Mudivaithanendal, Tirunelveli (Dt.). This research work conducted in Mudivaithanendal, Tuticorin district which has 5927 populations itself in 2017 (Wikipedia). Study Design was cross sectional descriptive study; Operational definitions were key features of samples are known siruneeraganoigal persons. Bore well users defined as using of Bore well water for drinking purpose and cooking purpose. Sample Size was use population survey or descriptive study using random (cluster) sampling in epi.info. Confidence level-95%, Confidence limits-5%, Population size -5927, Expected frequency-11.4%, Sample size-151, Data Collection by Information collected from known Siruneeraganoigal persons in Mudivaithanendal, Tuticorin District. Finally concluded as; According to result; samples were 67 male and female were 33, age group were got 64 in highest range of 41 to 50 years old. Education status; illiterate were 57 and degree and above -09. Monthly Income 72 samples were 15000-30000, BMI; Normal -61, Borderline - 50, High - 24 and Low -01. Drinking Water; Bore Well - 106, River Source - 32 and RO Water - 13, Drinking Water per day < 3litre - 67. Urination <3 were 87 samples. Therefore this research conclusion with statistical view Bore Well users affected by CKD in significant (p value <0.05) by the result.

Key Words: SiruneeragaNoigal (Kidney Disease), Bore Well Water

INTRODUCTION

Chronic kidney disease, describes the gradual loss of kidney function. Kidneys filters waste and excess fluids from your blood, which are excreted in your urine. When chronic kidney disease reaches an advanced stage, dangerous levels of fluid, electrolytes and waste can build up in your body. Suspected agents of CKD are cadmium, fluoride, arsenic, pesticide etc. in India diabetes and hypertension today accounts for 40-60% cases of CKD.

Prevalence of kidney disease was raise on rural areas. proactive screening was necessary for early diagnosis of the disease. The world kidney day observed by the international society of nephrology another organization, he said that variant of kidney diseases was found among rural population.

Because of using bore well water, it produces many problematic complications. Problems often encountered with water bores include reduce supply, dirty water, pumping of sand and deteriorating water quality. While many of the problems encountered with water bores are often associated with some mechanical defect. Broadly problems encountered with bores fall into the following three categories state of the resource, Physical condition of the bore, Condition of pumping equipment. In prevention programme, started at community level in chennai, the reported prevalence is 0.86% in the project population 1.39% in the control region. It has affected 10% to 17% of population; around 65,000 require advance treatment in Tamilnadu. There are only 3 population based studies in India commenting on the magnitude of chronic kidney disease. Aim of the study is to find out the prevalence of siruneeraganoigal among bore well users.

OBJECTIVES

Primary:

To evaluate the prevalence of SiruneeragaNoigal (KIDNEY DISEASE) in Mudivaithanendal, Tirunelveli (Dt.)

Secondary:

To determine the interrelation between the SiruneeragaNoigal & Bore Well Users.

To find the ratio of per day consumption of Bore Well water in siruneeraganoigal persons

LITERATURE REVIEW

Kidney disease, or renal disease, also known as nephropathy, is damage to or disease of a kidney. Nephritis is an inflammatory kidney disease and has several types according to the location of the inflammation. Inflammation can be diagnosed by blood tests. Nephrosis is non-inflammatory kidney disease. Nephritis and nephrosis can give rise to nephritic syndrome and nephrotic syndrome respectively. Kidney disease usually causes a loss of kidney function to some degree and can result in kidney failure, the complete loss of kidney function. Kidney failure is known as the end-stage of kidney disease, where dialysis or a kidney transplant is the only treatment option.

Chronic kidney disease causes the gradual loss of kidney function over time. Acute kidney disease is now termed acute kidney injury and is marked by the sudden reduction in kidney function over seven days. About one in eight Americans (as of 2007) suffer from chronic kidney disease.

Causes: Causes of kidney disease include deposition of the Immunoglobulin Antibodies in the glomerulus, administration of analgesics, xanthine oxidase deficiency, toxicity of chemotherapy agents, and long-term exposure to lead or its salts. Chronic conditions that can produce nephropathy include systemic lupus erythematosus, diabetes mellitus and high blood pressure (hypertension), which lead to diabetic nephropathy and hypertensive nephropathy, respectively.

Development: Kidney disease is a non-communicable disease. It can have serious consequences if it cannot be controlled effectively. Generally, the progression of kidney disease is from mild to serious. Some kidney diseases can cause kidney failure.

Diagnosis: The standard diagnostic workup of suspected kidney disease includes a medical history, physical examination, a urine test, and an ultrasound of the kidneys (renal ultrasonography). An ultrasound is essential in the diagnosis and management of kidney disease.

Borewell Drinking Water

In India, many people depend on borewell water today because of the limited or no water supply from rivers and lakes. Almost every city is dependent on borewell water. People find borewell water very helpful resource because it meets your water need. This water is suitable for daily needs but is the borewell water safe to drink? It is the only concern. If you are completely dependent on borewell water, then it is very important to purify the water for drinking and cooking purpose. Borewell water is usually hard and contains many harmful impurities which need to remove before drinking to stay healthy. Keeping this in mind, it is necessary to use an RO, UV or UF water purifier for borewell water.

It is quite obvious that purified water is far better than borewell water because you don't know the number of impurities present in the drinking water. Pure water keeps you and your family protected from many water-related diseases.

Drinking contaminated borewell water can cause many harmful diseases. Hardness in borewell water is due to the presence of harmful heavy metals like Arsenic, fluoride, and lead. Arsenic is the most dangerous heavy metal that can have serious health effects on human body.

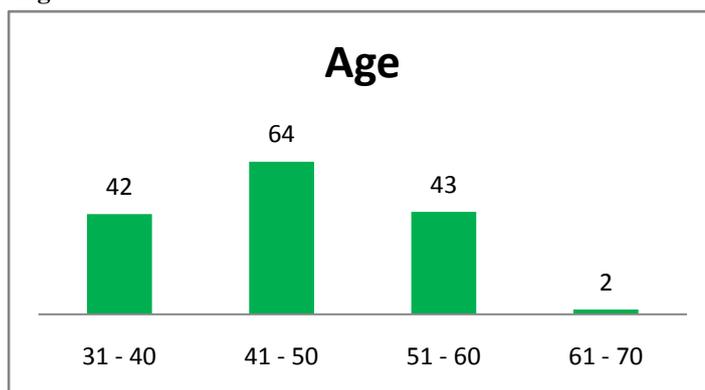
MATERIALS AND METHODS

Study Population: This research work conducted in Muduvaithanendal, Tuticorin district which has 5927 populations itself in 2017 (Wikipedia)

Study Design: Cross sectional descriptive study; collecting the primary data from direct interview among

RESULTS

Age :



siruneeraganoigal (kidney diseases) persons in Muduvaithanendal, Tuticorin district with the permission of proper channel of hierarchy through our college principal.

Operational definitions: In this research defined as key features of samples are known *siruneeraganoigal* persons. Bore well users defined as using of Bore well water for drinking purpose and cooking purpose.

Sample Size: Use population survey or descriptive study using random (cluster) sampling in epi.info. Confidence level-95%, Confidence limits-5%, Population size -5927, Expected frequency-11.4%, Sample size-151

Data Collection: Information collected - The information will be collected from known *Siruneeraganoigal* persons in Muduvaithanendal, Tuticorin District.

Data collection procedure: Main Investigator will collect all data from public by questionnaire, fill in field survey method.

Data Analysis: In research data analysis; including recording of key exposure/outcome variables, indicators to be calculated for the descriptive analysis Eg., measure the *Siruneeraganoigal* persons among bore well users (prevalence, incidence), measures of central tendency (mean, median)].

Quality Assurance: procedures were conducted in-time with good planning by chief investigator whole research work will be done by herself with time frame schedule.

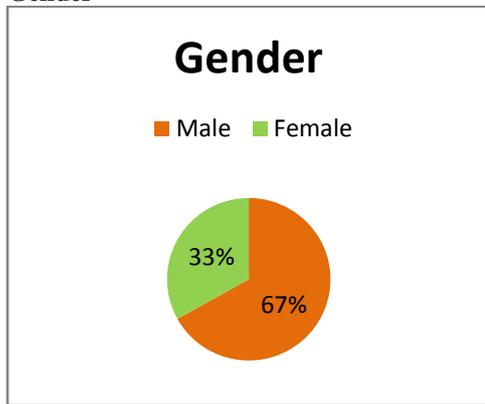
- Protocol development
- Field procedures
- Data collection
- Data analysis

Bias and Limitations: Data had taken to minimize the impact of the bias / limitation on the quality of the study through primary data confirm by informed reality scores are Good, Fair, Unreliability.

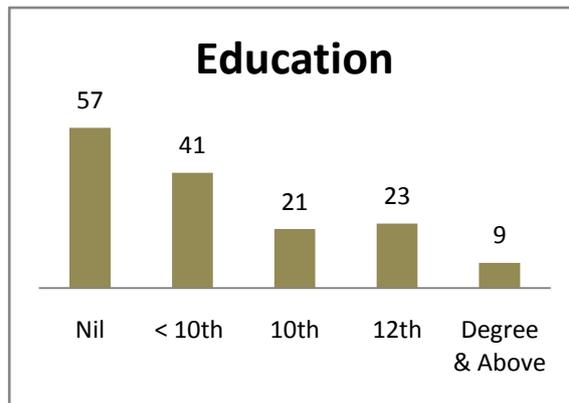
Practical Considerations: Logistics for data collection: Chief investigator arrangements for the data collection time schedule as 3pm-6pm weekdays & particular time of week end.

Ethical Issues: The study is to be carried out in primary data collection through direct interview, therefore don't need of IEC approval. Selected samples informant concern should be from all participation of this research.

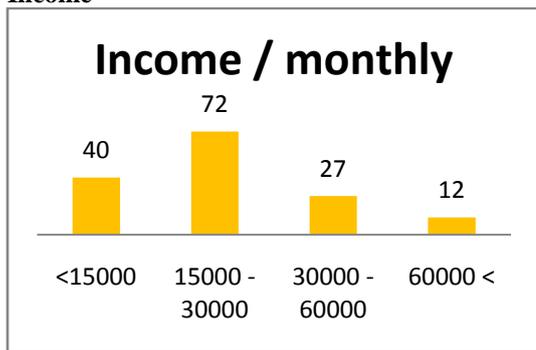
Gender



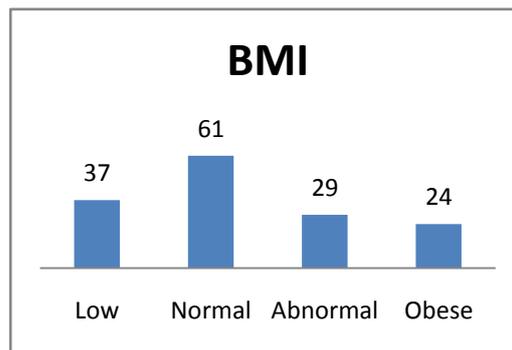
Education



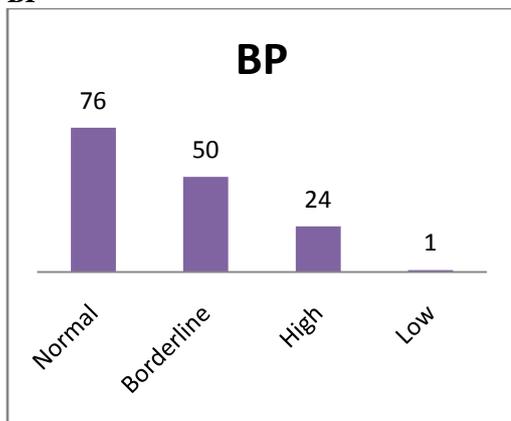
Income



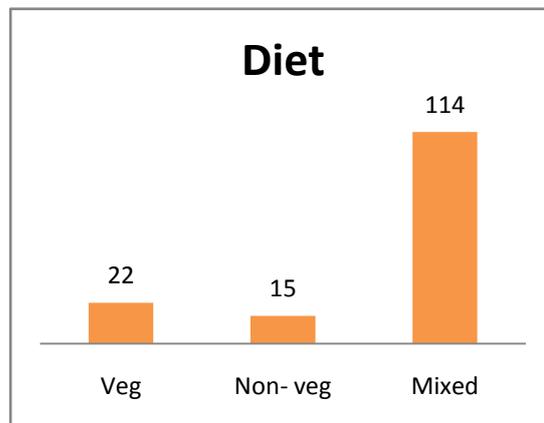
BMI



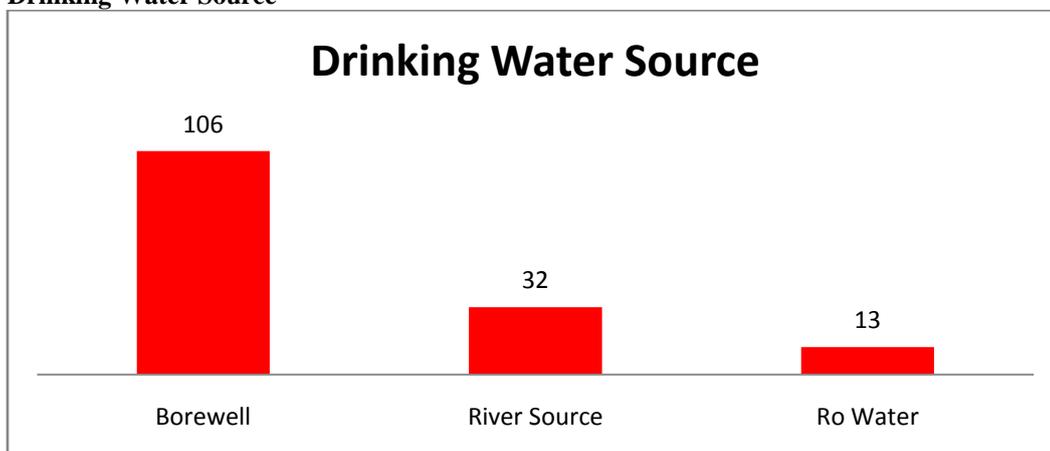
BP



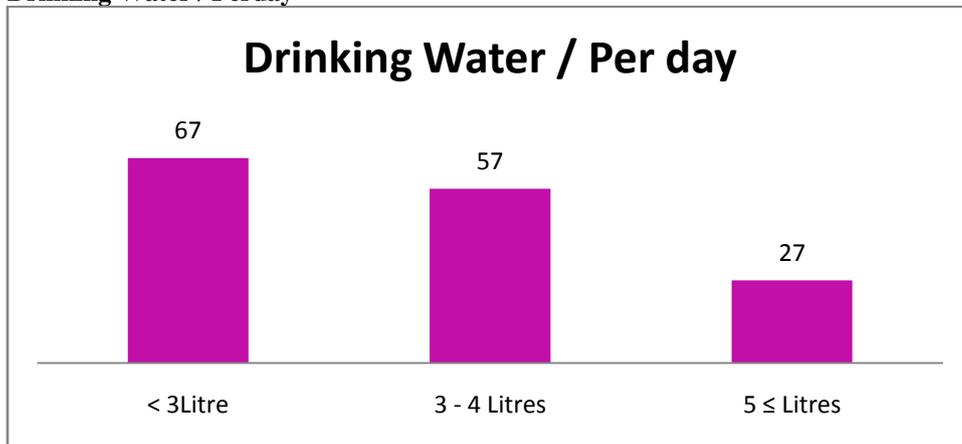
Diet



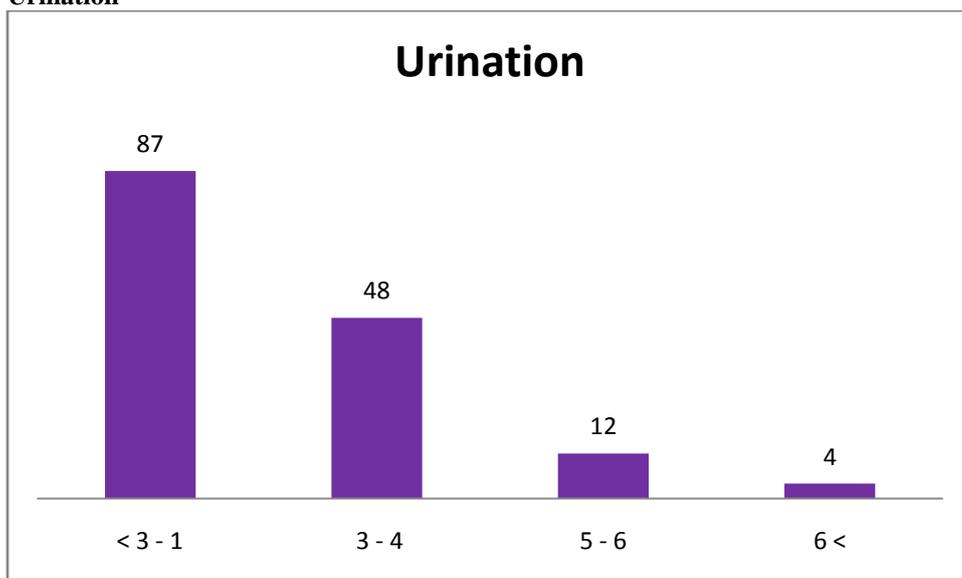
Drinking Water Source



Drinking Water / Perday



Urination



DISCUSSION AND CONCLUSION

Evaluated the prevalence of siruneeraganoidal (kidney diseases) in Mudiyaithanendal. Tuticorin (Dt.) determined the interrelation between the Siruneeraganoidal & Bore well Users and found ratio of consumption of Bore well in siruneeraganoidal persons. Got Outcome wasensured andwill reduce the bad impact of Bore well users in siruneeraganoidal and determine interrelation between bore well users and Siruneeraganoidal to the public.

According to result; samples were 67 male and female were 33, age group were got 64 in highest range of 41 to 50 years old. Education status; illiterate were 57 and degree and above -09. Monthly Income 72 samples were 15000-30000, BMI; Normal -61, Borderline – 50, High – 24 and Low -01. Drinking Water; Bore Well – 106, River Source – 32 and RO Water – 13, Drinking Water per day < 3litre – 67. Urination <3 were 87 samples. Therefore this research conclusion with statistical view Bore Well users affected by CKD in significant (p value <0.05) by the result.

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