

Prevalence of Urine Almunin & Microalbumin Levels In A Village with High Flouride in Drinking Water

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Abstract--- albumin is a protein present in the blood, proteins are normally absent in urine because kidney cells generally prevent large molecules including proteins from being excreted .in kidney diseases, albumin will appear in the urine even with normal blood levels. The test for urinary albumin measures the amount of protein in urine.

I. INTRODUCTION

on the guidance of Dr. S. V. L Narayana Rao MD,DM,DNB(nephrologist) we visit pakeerapalem village located in prakasam district there people suffering with high flouride in drinking water. We went and took the permission of the village people to collect the blood \$urine samples. In blood sample collection, we maintain the universal precautions and procedures.

II. LITERATURE

The kidneys are paired organs with several functions. They are seen in many types of animals including vertebrates and some invertebrates in humans kidneys are located behind the abdominal cavity in a space called the retro peritoneum there are two, the right kidney sits just below the diaphragm and posterior to liver, the left below the diaphragm and posterior to spleen kidneys weights between 125- 170gms in males & between 115 and 155 in females. The kidney is approximately 11-14cm in length, 6cm wide & 3cm thick.

Anatomy of the Kidney

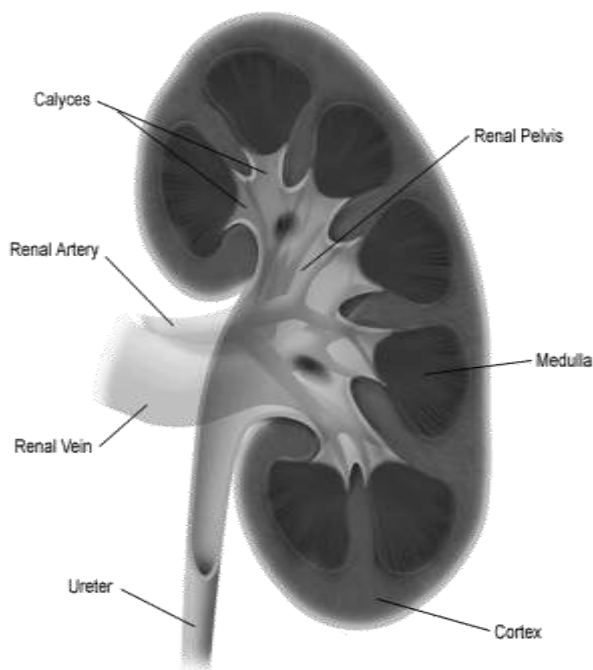


Fig. 1: Anatomy of the Kidney

III. INSTRUMENT TYPE

A. *Random biochemistry analyzer incubation heater, Photometer*

- 1) SAMPLE VOLUME : 1ML AT 500ML
- 2) TYPE OF MEASUREMENT : Mono or Bichromatic
- 3) WAVELENGTH : 340-700nm
- 4) POWER SUPPLY : 230v
- 5) PRINCIPLE: Beer's & Lamberts Law
- 6) REAGENT PREPARATION : Liquid reagents

B. *Normal Reference Values*

Serum, Plasam (alumin)-3.7-5.3g/dl Globulin -2.3-3.6g/dl
 CALCULATIONS: Albumin in g/dl=Abs.T/Abs.S*4
 Globulin in g/dl= (Total proteins) -(Albumin)
 LINEAITY: The sample is linear upto 7g/dl

IV. RESULTS

- 1) No. of People : 100
- 2) Male / Females : 41/59
- 3) Age variation : 24-75%
- 4) Micro Albumin Positive People : 21%
- 5) Normal Micro Albumin People: 79%
- 6) Macro albumin (or) Albumin elevated people : 13%
- 7) Macro Albumin (or) Albumin Normal People : 87%
- 8) Peoples styles of working :90% Labor
 - a. 10% Farmer
- 9) Food Habits : 90% Non-vegetarians.
 - a. : 10% vegetarians
- 10) Water conception : Bore water (free of flouride)
 - a. (Last 4 years they stopped flouride water)
- 11) Family history : Most of the HTN, CAD, and Body pains

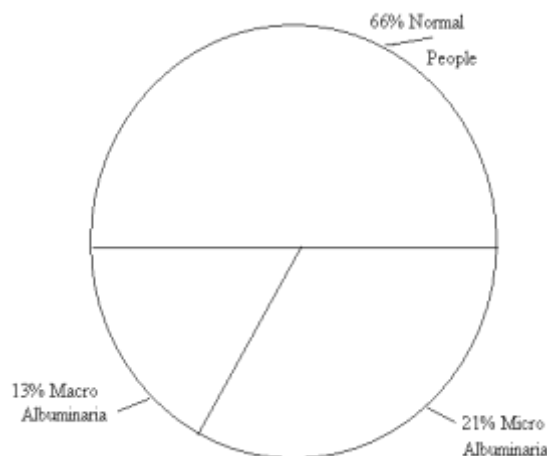


Fig. 2: Graphical Representation:

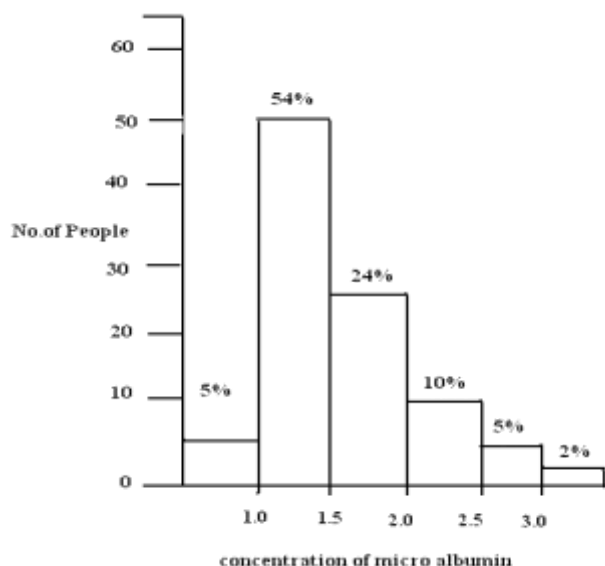


Fig. 3: Bar Diagram

V. DISCUSSION

Fluoride >0.3ppm in water harmful to the vital organs in the body especially kidney will be damage because the waste will be secreted by the Nephrons of the kidney's people who will consumed fluoride in drinking water will be affected their kidneys. Most of the people are coming to the Nephrologists from this village. They are suffering with H.T.N and C.K.D. the family history of the people with HTN and CKD and body pains. The fluoride > 0.3 ppm in the drinking water will be causes damage to kidneys and other organs. The vitamin D deficiency also absorbed. The micro albumin excretes in their urine. This is the indication for the chronic kidney failure. Then macro albumin will come out.

VI. CONCLUSION

Because of high fluoride in the drinking water Nephrons of the kidney fail to maintain normal function to retain the vital product like alb in blood circulations. Because of kidney failure micro albumin is the indications for the macro albumin coming to next for main damage to the kidneys. Absorbed 21% of the people with micro albumin, 13% people with macro albumin aria.

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