

Incidence of Renal Hypertension In Iran*

(A Study Over 611 Patients)

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The cause of elevated diastolic blood pressure remains elusive in the majority of instances, however in about 3.25 per cent of all hypertensive patients a specific causative factor such as renal, adrenal or neurogenic can be identified.

Among these various known factors, renal hypertension appears to be the most common potentially curable form of secondary hypertension.

The exact incidence of renal hypertension remains the subject of considerable debate with estimates ranging from 3.25 per cent.

A careful review of all hypertensive patients and all the statistics available in our hands revealed that about 3.25 per cent of all hypertensive (Diastolic) are of renal origin. This estimate, of course, includes both congenital and acquired varieties of renal occlusive diseases.

The purpose of our recent study on prevalence of renal hypertension among other hypertensive patients was to determine the exact incidence of renal hypertension among other hypertensive patients admitted to our university hospital.

The study was carried out in our University Hospital in the Department of Medicine for a period of six months from May 1966 through October 1966.

Based upon the results obtained from this study, we strongly believe that renal hypertension to be the most common cause of secondary hypertension in our community.

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Material and Method

1. All of our 70 hypertensive patients who were selected among 611 patients admitted to our medical service from May 1966 through October 1966 were kept in absolute bed rest for three consecutive days and no drug was given at all.
2. Determination of Blood Pressure was carried out three times daily in three positions: supine, standing and sitting.
3. Salt free diet for those who had marked edema.
4. Regular physical examination including heart examination was carried out daily.
5. Eye ground examination twice weekly.
6. E. C. G. taken twice weekly.
7. Urinalysis and determination of B. U. N. twice weekly.

Laboratory Methods and Materials for the Determination of the Causes of Hypertension

The following laboratory workups were carried out in all of our hypertensive patients:

1. Intravenous Pyelography.
2. Tubular function tests including: concentration and dilution tests, B. S. P. excretion tests.
3. Glomerular function tests including: concentration and dilution tests, and Mannitol excretion.
4. Bromosulphophtalein excretion tests.
5. Flat plate of abdomen (Clear visualization from kidney area).
6. Retro_pneumo_peritoneum.
7. Muscle biopsy.
8. Kidney biopsy.
9. L. E. cells preparation.
10. Electrolytes determination.
11. Renal angiography and aortography.
12. 17-ketostroid and 17 hydroxystroid determinations.
13. Regitine tests.

14. Tomography from kidney area.
15. Chests x-rays.
16. Cathecolamine determinations.
17. Post mortem examination (in 7 cases.)

Chief complaints of the patients

All of our hypertensive patients were admitted to our University Hospital with the following chief complaints:

1. With the signs and symptoms of heart failure 8 cases.
2. With the signs and symptoms of azotemia 14 cases.
3. With the signs and symptoms of cardio-renal failures 4 cases.
4. With the signs and symptoms of anemia 5 cases.
5. With the signs and symptoms of Hypertension 7 cases.
6. With the edema of lower extremities without any other complaints 9 cases.
7. With urinary symptoms (such as nocturia - albuminuria etc...) 6 cases.
8. With signs and symptoms of hypertensive encephalopathy 4 cases.
9. High blood pressure was determined only in regular physical examination 13 cases.

Results of the study

1. Incidence of renal hypertension in our community is quite high with the estimate ranging from 10 to 60 per cents of all of secondary hypertension.

2. Incidence of renal hypertension exceeds $\frac{20}{1}$ in renal parynchymal disease and renal vascular occlusive diseases.

3. Renal Biopsy always helps in determination and differentiation of renal hypertension and non renal hypertension.

4. Labile hypertension must be determined by routine and daily determination of blood pressure.

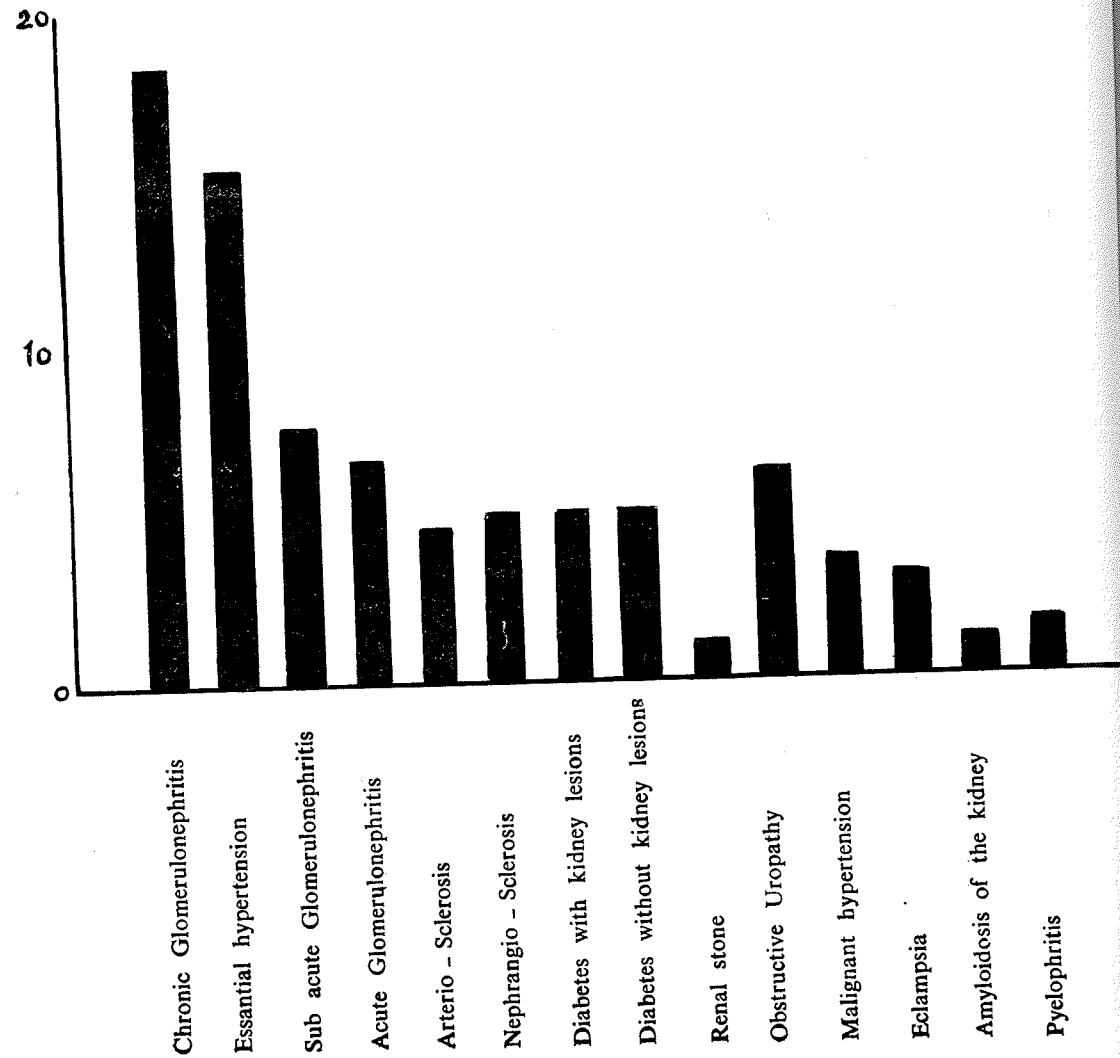
5. Renal angyography must be carried out with no hesitation if the cause of hypertension can not be detected by other clinical and laboratory measures.

6. Diuretics are not effective in lowering blood pressure of a patient with renal hypertension if creatinine clearance is less than 20 ml/min.

7. Intravenous use of Mannitol can differentiate renal from extrarenal azotemia.

8. Renal biopsy will be a good guide for determination and effectiveness of the use of anti hypertensive drugs.

9. In all hypertensive patients, renal function tests are mandatory.



Summary

The cause of elevated diastolic blood pressure remains elusive in the majority of instances, however in about 3-25 per cent of all hypertensive patients a specific causative factor such as renal can be identified.

Based upon our recent study, we believe that the incidence of renal hypertension is quite high in our community with the estimate ranging from 10 to 40 per cent of all secondary hypertension.

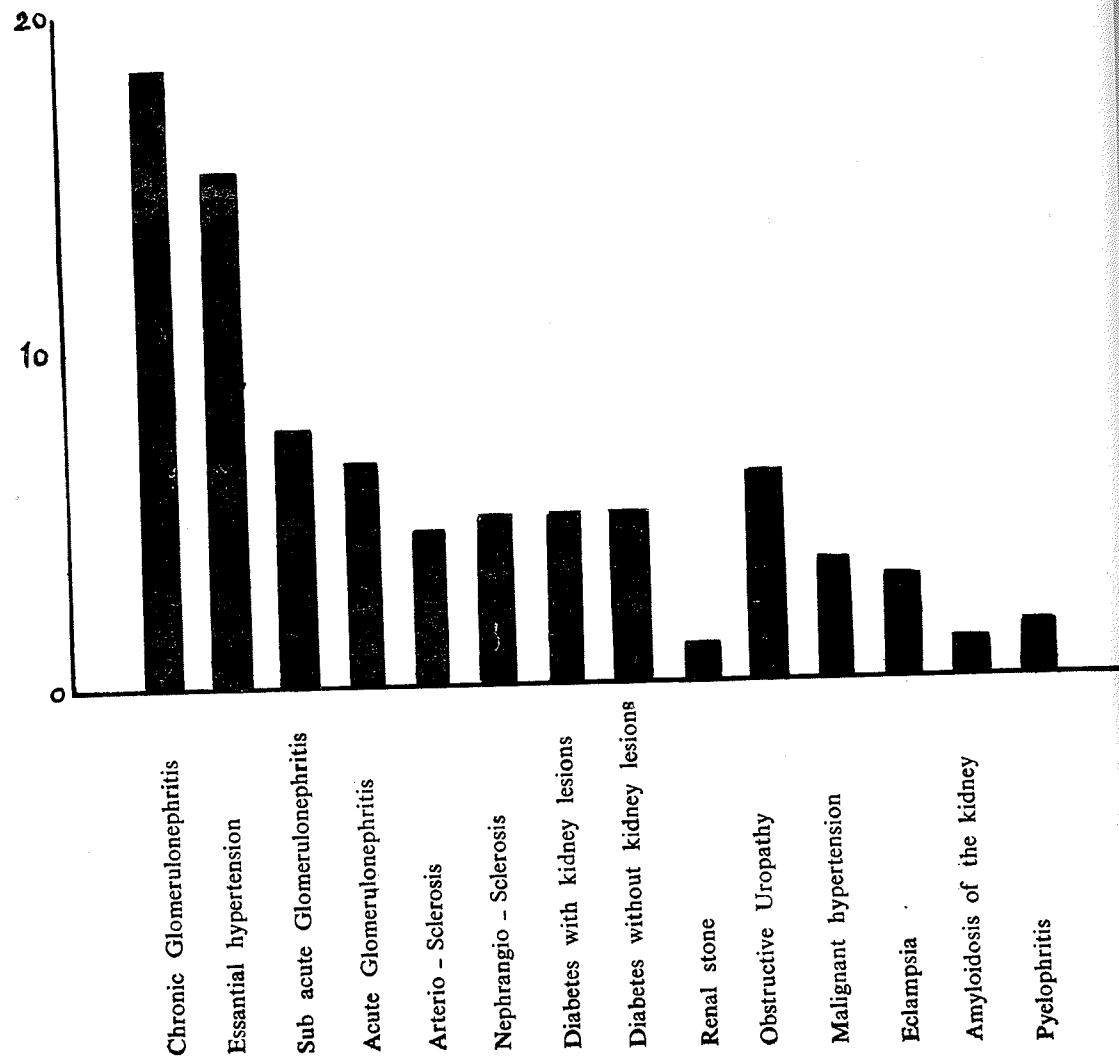
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