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EVALUATION OF SAFETY PROFILE OF ANTI HYPERTENSIVE DRUGS WITH THE EFFECT OF PATIENT COUNSELING

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ABSTRACT

Objective: To establish does response relationship to the hypertensive patients and ensure safety profile of drugs through counseling of patients.

Method: Patients who have suffered by secondary hypertension with blood pressure range of above 145-170/100-110 mmHg are selected and divided in two groups. First group of patients to administer for Nifedipine 5mg and furosemide 40mg administered for second group patients by orally .Every 30minits of after 4hrs blood pressure monitored and compliance about disease and drugs from patients are collected and recorded. Finally statistically analyzed safety and does response of the drugs.

Discussion: 30% of patients were found to be 111-115/90-95 mmHg after treated with nifedipine and 27.5%of patients blood pressure reduced into 116-120/95-100mmHg for after administration of furosemide.

Conclusion: In this study it was found that nifedipine is effective in the management of hypertension in terms of efficacy than furosemide. We should recommend this regimen for treatment of hypertensive patients in RMMC&H.

INTRODUCTION: The principle objective of patient counseling is to provide directions, instructions, advices, etc about the drug as for the prescription and imply a positive behavior in which the patient is motivated to adhere to the prescribed treatment, counseling should be regarding.

The main objective of this study was carried out to establish dose response relationship to the Hypertensive patient and ensure safety profile of drug through counseling by patients. This study was conducted in the Department of Medicine, Raja Muthaiah Medical College & Hospital. Annamalai University. It is a multi specialty having 1010 bedded tertiary level teaching hospital, from the period of sep-05 to May 07.

METHOD:

1. Designing and preparation of proforma (enclosed)

2. Identification of patient (who have BP>140/95 mmHg)

3. Selection of patients

(a) Inclusion criteria

(b) Exclusion criteria

4. Data collection of clinical lab. Test, Blood, urine samples …..Etc,

5. Analysis.

Finally, the data obtained were analyzed statistically.

1. Designing and preparation of proforma: The Proforma we designed for Hypertensive patient which contain patient demographic data, present complaints, past history, allergy, lab test, diagnosis, therapeutic management , ADR,……etc. We should counseling the entire Hypertensive patient and get the details for completion of proforma.

2. Identification of patient: Patient at RMMC & H has been selected for this study. The criteria for entry were a systolic BP of > 140 mmHg and or diastolic BP of > 95 mmHg sustained over 20min informed consent is obtained for all patients. Supine BP readings were taken with standard sphygmomanometer.

3. Selection of patient:

(a) Inclusion criteria: Subjects must fulfill all of the following criteria to be considered for included in this study.

- Subjects will provide written informed consent.
- Subjects must be of BP range of > 140/>95 mmHg age of 40-65 kg/m^2.
- Negative results of urine & blood test.
- Availability of subject for the entire study period and willingness to adhere to protocol requirements as evidenced by written informed consent.
- No abnormalities found in laboratory parameters.
- Any evidence of impairment of renal (or) cardiac function.
- Regular smokers who smoke more than ten cigarettes per day and have difficulty in abstaining from smoking for the duration of each study period.

b) Exclusion criteria: The subject well is exuded based on the following criteria.

- Patient have excluded by predisposing disease like hypertension with diabetic mellitus, hypertension with bronchial asthma, hypertension with tuberculosis, etc.
- Subjects incapable of understanding the informed consent
- Subject with BP< 96/80 or > 180/120
- Subject who have been on an abnormal diet during the do study period.
- X-Ray, chest finding suggesting of any abnormality.

Selected patients are divided in to two groups. Nifedipine 5mg administered for first group of patient and second group of patient treated with 40 mg by orally. BP and pulse rate were monitored clinically during the study period of 8hrs. All new symptoms and signs with in 12 hrs of treatment were recorded.

4. Data collection: During this procedure demographic data, standard physical examination with vital signs, clinical lab test on blood and urine samples, ECG and chest X-ray will be done.

Observation:

TABLE 1: AGE WISE DISTRIBUTION

Age (in Yrs)	No. of Patient		Total
	Male	Female	
41-50	13	6	19
51-60	26	11	37
61-70	29	15	44

TABLE 2: CLASSIFICATION PATIENT ACCORDING TO THEIR BP RANGE

BP Range	BP Readings (in mmkg)	No. of Patient		Total
		Male	Female	
Mild	146-155/95-100	17	8	25
Moderate	156-165/101-105	32	13	45
Severe	166-175/106-110	19	11	30

TABLE 3: CLASSIFICATION PATIENTS ACCORDING TO THEIR PERSONAL HABITS

Personnel Habits	No. of Patient		Total
	Male	Female	
Smoking	16	0	16
Alcoholic	21	0	21
Both Smoking & Alcoholic	24	0	24
Non Smoking & Alcoholic	7	32	39

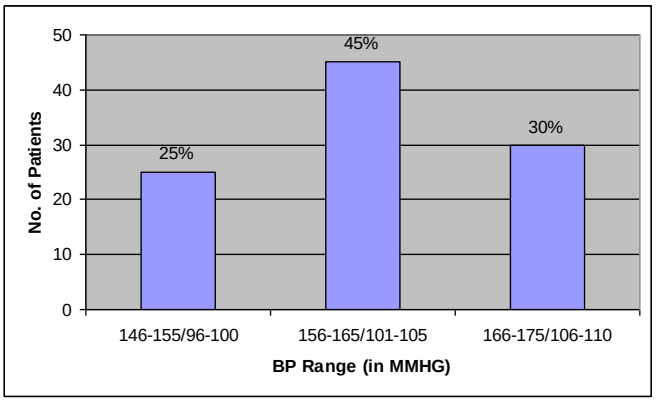

FIG. 1: BEFORE ADMINISTRATION OF DRUG

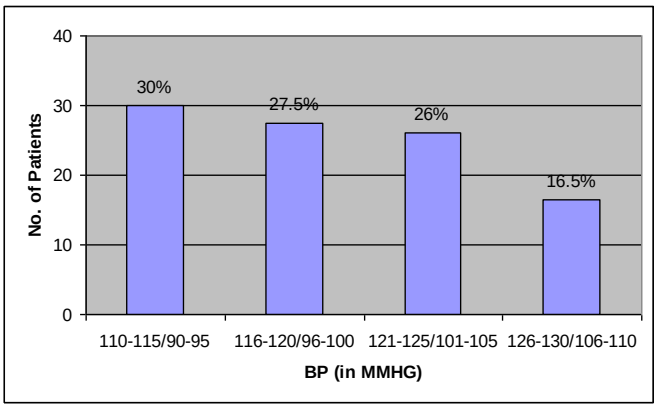

FIG. 2: AFTER ADMINISTRATION OF DRUG

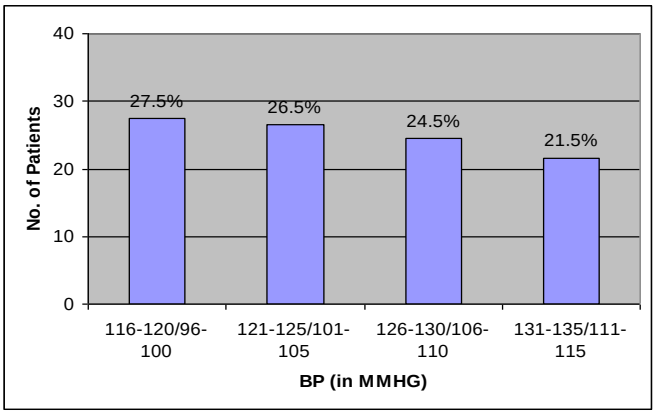

FIG. 3: AFTER ADMIN OF FUROSEMIDE

Result: Nifedipine effectively lowered Blood pressure. Its onset of action was prompt, not longer than 20min in most instances. The hypertensive effects lasted 4 hrs after 5mg nifedipine administration by orally. 65.33% of patient has experienced no side effects and 16.33% of patient complained nausea. Furosemide 40mg was given orally to second group of patient. All patients were recorded after 30min interval with reduction of SBP by 21-17

mmHg and this fall in SBP was significant not only after 30mins but even at 4thhr. Its onset of action was prompt, longer than 4-6 hrs. 57% of patients showed no side effects and 16.77% of patients complained about palpitation, 21.23% of patient experienced tachycardia and 5% of patients complained nausea.

DISCUSSION: Calcium entry in to the smooth muscle cell this interfering with excitation coupling. It has found a place in the management of sever hypertension. It is a potent inhibitor of both vascular and intra vascular smooth muscle contraction. Loop diuretic Furosemide acts on entire nephron including the Loop of Henley with exception only on the distal site where Na+ is exchanged for K^+ ion and H^+ ion. Furosemide causes little exchange on urinary P^H and its diuretic response does not appear to a particular limit, by the existing state of electrolyte (or) acid base balance.

CONCLUSION: 30% of patients were found to be 111-115/90-95 mmHg of BP for after administration of nifedipine and 27.5% of patient BP reduced in to 116-120/95-100 mmHg for after treated with Furosemide. In this study it was found that nifedipine is effective in the management of hypertension in terms of safety and efficacy when compared to that of Furosemide. We recommend for the treatment of hypertensive patients in RMMC & H. This regimen also reduced the duration of hospital stay.

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