

Abstract

Ambulatory Blood Pressure Monitoring in Renal Disease Patients

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Abstract

Background

Ambulatory Blood Pressure Monitoring (ABPM) has a number of advantages over office blood pressure measurements. We report ABPM patterns in renal disease patients in Anuradhapura.

Method

Anonymised data were obtained from ABPM records at renal unit, teaching hospital Anuradhapura from 7th July to 6th August 2015. Patient age, sex and renal replacement status were documented. Twenty four hour average blood pressure, day and night time average blood pressures, nocturnal dipping and morning surges were recorded. Average, minimum and maximum heart rate values were also obtained.

Results

Of 12 patients, average age was 46.6 years and 9 (75%) were males. 7 (58.3%) were on haemodialysis. Average 24 hour blood pressure was 170.7/100.8mmHg, and day and night time blood pressures were 173.4/107.7 and 162.7/96.4mmHg respectively. 9 (75%) had inadequate control. Adequate nocturnal dip was seen in only 3 (25%) patients and only 1 (14.3%) haemodialysis patient. Average heart rate was 76 beats per minute (bpm), with 5 (41.6%) patients having minimum pulse rates below 60 bpm, and 3 (25%) having maximum pulse rates over 100 bpm.

Conclusions

ABPM facilitated recognition of diurnal blood pressure patterns and heart rate variations in renal disease patients, including dialysis patients. Suboptimal patterns were detected in the majority of patients. This influenced selection of antihypertensive agents with suitable durations of action and effects on heart rate, and influenced dosages and timing of administration. To the best of our knowledge, this is the first study to describe ABPM patterns in Sri Lankan patients.

Key words: Ambulatory Blood Pressure Monitoring; Sri Lanka; Renal Disease

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