COST-EFFECTIVENESS STUDY OF ANTIHYPERTENSIVE DRUGS IN MUMBAI, INDIA

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Background: Hypertension is a serious global public health problem. It accounts for 10% of all deaths in India and is the leading noncommunicable disease.[1] Recent studies have shown that the prevalence of hypertension is 25% in urban and 10% in rural people in India.[2] It exerts a substantial public health burden on cardiovascular health status and health care systems in India.[3] Antihypertensive treatment effectively reduces hypertension-related morbidity and mortality.[1] The cost of medications has always been a barrier to effective treatment. The increasing prevalence of hypertension requires use of cost-effective treatment for the effective management of the disease.

Objectives: The present study assesses the cost-effectiveness of antihypertensive drugs in patients with hypertension from Mumbai, India.

Methods: A prospective cross-sectional study was conducted to assess the cost-effectiveness of antihypertensive drugs. Face-to-face interviews were conducted by using a validated questionnaire in a total of 136 (66 males, 70 females) patients with hypertension from F-North Ward, Mumbai, India. Cost-effectiveness was determined on the basis of a drug's cost, efficacy, adverse drug reactions, safety of administration, frequency of administration, and bioavailability.

Results: Atenolol was most cost-effective (international normalized ratio [INR]: 5.5/unit of effectiveness), followed by the amlodipine + losartan combination (INR: 5.6/unit of effectiveness) and amlodipine (INR: 6.3/unit of effectiveness) in the present study. Thirty-eight (28%) patients received combination therapy. Lisinopril prescribed to16 (11.8%) patients was the least cost-effective drug (INR: 17.2/unit of effectiveness).

Conclusions: Prescriptions of cost-effective antihypertensive drugs (73.5%) were more common than less cost-effective antihypertensive drugs (26.5%) in hypertensive patients from Mumbai, India. Most of the patients (72%) were prescribed monotherapy in the treatment of hypertension.

Key words: antihypertensive, cost-effectiveness, hypertension, India.

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References

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