



Efficacy And Tolerability Of Amlodipine And Losartan On Hypertensive Patients In Selected Outpatient Clinics In Davao City

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Research Article

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Abstract

Objective: This study sought to determine the efficacy and tolerability of amlodipine and losartan on hypertensive patients in selected outpatient clinics in Davao City.

Methods: A descriptive study design was employed in this study. A non-randomized, purposive sampling was used in gathering the data. To establish with a degree of confidence if there exists a relationship between age, sex, weight and decrease in the systolic and diastolic blood pressure readings of respondents taking Amlodipine and Losartan, the pearson correlation was computed.

Results: Findings reveal that in both Amlodipine and Losartan, there was no significant decrease in the systolic blood pressure, but a significant decrease in the diastolic blood pressure of the respondents. Majority of the respondents have reached the goal clinic-recorded systolic blood pressure (si SBP) and diastolic blood pressure (si DBP) both for amlodipine and losartan. Age and weight has no significant implication on blood pressure readings of the two groups. Further, there was a weak correlation between sex and blood pressure readings on patients taking Losartan, while in Amlodipine, sex has no significant correlation on the diastolic blood pressure but significant in the systolic blood pressure readings.

Conclusion: It can be inferred that the antihypertensive effect of losartan is comparable with amlodipine. However, losartan has superior tolerability than amlodipine.

Key words: Efficacy, hypertensive patients, outpatient clinic, Amlodipine, Losartan.

Introduction

Two in every 10 Filipino adults, 20 years and over, are hypertensive. Amlodipine and Losartan are the antihypertensive agents commonly used to control this condition. Success in the therapy of hypertension not only depends on the medication but also on the adherence to therapeutic regimen.

This study sought to determine the efficacy and tolerability of amlodipine and losartan on hypertensive patients in selected outpatient clinics in Davao City.

Methodology

A descriptive study design was employed in this study. A non-randomized, purposive sampling was used in gathering the data.

Demographic profile of the subjects who are hypertensive patients taking Amlodipine and Losartan with a blood pressure of 95-115 mmHg aged 18 to 75 years old, male and female, and side effects that were experienced were recorded.

Z-test was used to establish whether there is significant decrease in the differences of the systolic and diastolic blood pressure recordings of 1st and 2nd, 2nd and 3rd visits of the respondents treated with Amlodipine and Losartan respectively. To establish with a degree of confidence if there exists a relationship between age, sex, weight and decrease in the systolic and diastolic blood pressure readings of respondents taking Amlodipine and Losartan, the pearson correlation was computed.

Results

Findings reveal that in both Amlodipine and Losartan, there was no significant decrease in the systolic blood pressure, but a significant decrease in the diastolic blood pressure of the respondents. Majority of the respondents have reached the goal clinic-recorded systolic blood



pressure (systolic blood pressure (sBP) and diastolic blood pressure (dBP) both for amlodipine and losartan.

Age and weight has no significant implication on blood pressure readings of the two groups. Further, there was a weak correlation between sex and blood pressure readings on patients taking Losartan, while in Amlodipine, sex has no significant correlation on the diastolic blood pressure but significant in the systolic blood pressure readings.

Compared with amlodipine, losartan has a lesser episode of adverse effects (6%) as compared to amlodipine (17.5%).

Table 1. Correlation Between Age and Systolic and Diastolic Readings of Respondents Treated with Losartan (n=50) and Amlodipine (n=40)

| Category | Variable | Systole (r) | Diastole (r) | Interpretation |
|------------|----------|-------------|--------------|------------------|
| Losartan | Age | -0.180 | -0.271 | Weak correlation |
| Amlodipine | Age | 0.011 | -0.050 | Weak correlation |

Table 2. Correlation Between Sex and Systolic and Diastolic Readings of Respondents Treated with Losartan (n=50) and Amlodipine (n=40)

| Category | Variable | Systole (r) | Diastole (r) | Interpretation |
|------------|----------|-------------|--------------|--|
| Losartan | Sex | 0.185 | -0.061 | Weak correlation |
| Amlodipine | Sex | 0.413** | 0.238 | Weak correlation ** Significant Correlation |

Table 3. Correlation Between Weight and Systolic and Diastolic Readings of Respondents Treated with Losartan (n=50) and Amlodipine (n=40)

| Category | Variable | Systole (r) | Diastole (r) | Interpretation |
|------------|----------|-------------|--------------|------------------|
| Losartan | Weight | -.179 | .129 | Weak correlation |
| Amlodipine | Weight | -.136 | .101 | Weak correlation |

Table 4. Percentage of Patients reaching the Goal systolic blood pressure (5-6 mmHg reduction) for Losartan and Amlodipine

| Medication | Total Number of Patients | Patients reaching the goal systolic blood pressure | Percentage |
|------------|--------------------------|--|------------|
| Losartan | 50 | 34 | 68% |
| Amlodipine | 32 | 40 | 80% |

Table 5. Percentage of Patients Reaching the Goal diastolic blood pressure (5-6 mmHg reduction) for Losartan and Amlodipine

| Medication | Total Number of Patients | Patients reaching the goal diastolic blood pressure | Percentage |
|------------|--------------------------|---|------------|
| Losartan | 50 | 30 | 60% |
| Amlodipine | 40 | 31 | 77.5% |

Table 6. Percentage of Studied Population who Developed Adverse Effects Toward Losartan and Amlodipine

| Adverse Effects | Number of Patients who experienced adverse effects upon taking Losartan | % | Number of Patients who experienced adverse effects upon taking Amlodipine | % |
|-----------------|---|---|---|-----|
| Edema | 2 | 4 | 1 | 2.5 |
| Palpitation | | | 1 | 2.5 |
| Headache | 1 | 2 | 4 | 10 |
| Cough | | | 1 | 2.5 |

Conclusion:

It can be inferred that the antihypertensive effect of losartan is comparable with amlodipine. However, losartan has superior tolerability than amlodipine.

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AUTHORS' CONTRIBUTIONS

Authors contributed equally to all aspects of the study.

PEER REVIEW

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CONFLICTS OF INTEREST

The authors declare that they have no competing interests