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A PROSPECTIVE OBSERVATIONAL STUDY ON PRESCRIBING PATTERNS AND EVALUATING MEDICATION ADHERENCE IN GERIATRIC ISCHEMIC STROKE PATIENTS RECEIVING ANTIPLATELET THERAPY- A PILOT STUDY

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Abstract: This prospective observational pilot study evaluated the prescribing patterns of antiplatelet therapy, medication adherence, and quality of life among 39 geriatric ischemic stroke patients aged ≥65 years receiving secondary preventive treatment. Patients were categorized into three age groups (65–74, 75–84, and ≥85 years). Prescribing patterns were assessed from case records, medication adherence was measured using the Medication Adherence Rating Scale (MARS-10) before and one month after pharmacist-led counselling, and quality of life was evaluated using the Stroke-Specific

Quality of Life (SS-QOL) scale. Aspirin monotherapy was the most frequently prescribed antiplatelet agent across all age groups, while clopidogrel and dual antiplatelet therapy were used selectively based on clinical characteristics and recurrent stroke risk. Hypertension, dyslipidemia, and type 2 diabetes mellitus were the comorbidities, with treatment reflecting evidence-based management. Medication adherence was poor before counselling but improved significantly after pharmacist intervention, accompanied by enhanced stroke-specific quality of life. These findings emphasize the importance of individualized antiplatelet therapy, comprehensive management of comorbidities, and the vital role of clinical pharmacists in improving adherence and therapeutic outcomes among geriatric ischemic stroke patients.

Keywords: Geriatric ischemic stroke, Antiplatelet therapy, Prescribing pattern, Medication adherence, Stroke-specific quality of life, Patient counselling, Secondary stroke prevention.

1. INTRODUCTION

A stroke occurs when a blood vessel in the brain bursts (hemorrhagic stroke) or becomes blocked (ischemic stroke), resulting in symptoms including weakness, difficulty speaking, or loss of mobility. The World Health Organization defines stroke as "rapidly developing clinical signs of focal or global disturbance of cerebral function lasting more than 24 hours or leading to death, with no apparent cause other than vascular origin.[1] Stroke is broadly classified into two major types based on its cause:

1. Ischemic Stroke 2. Hemorrhagic Stroke

Ischemic stroke accounts for about 80–85% of all stroke cases. It occurs when there is a blockage in a blood vessel supplying the brain, leading to reduced blood flow and oxygen supply. [2] Hemorrhagic stroke occurs due to rupture of a blood vessel, causing bleeding in or around the brain.

The three main causes of cerebral infarction are cardioembolism, small-vessel disease (lacunar infarcts), and large artery atherosclerosis. [3] Stroke continues to be one of the major global causes of death and disability. The World Stroke Organization states that ischemic stroke makes up the majority of stroke cases worldwide, with an increasing frequency in low- and middle-income nations. However, due to fast urbanization, changing lifestyles, and an increase in the incidence of risk factors including diabetes, dyslipidemia, and hypertension, the burden is rising in developing nations like India.[4]

1.1 Pathophysiology

A stroke is an abrupt neurological condition brought on by either ischaemia or haemorrhage that disrupts cerebral blood flow. About 85% of stroke cases are ischaemic, which is caused by thrombotic or embolic occlusion, which is frequently linked to atherosclerosis. Reduced blood and oxygen flow causes tissue necrosis, cellular dysfunction, and neuronal death. Inflammation, oxidative stress, excitotoxicity, calcium overload, disruption of the blood-brain barrier, and immune response activation all contribute to the pathogenesis of stroke.[5]

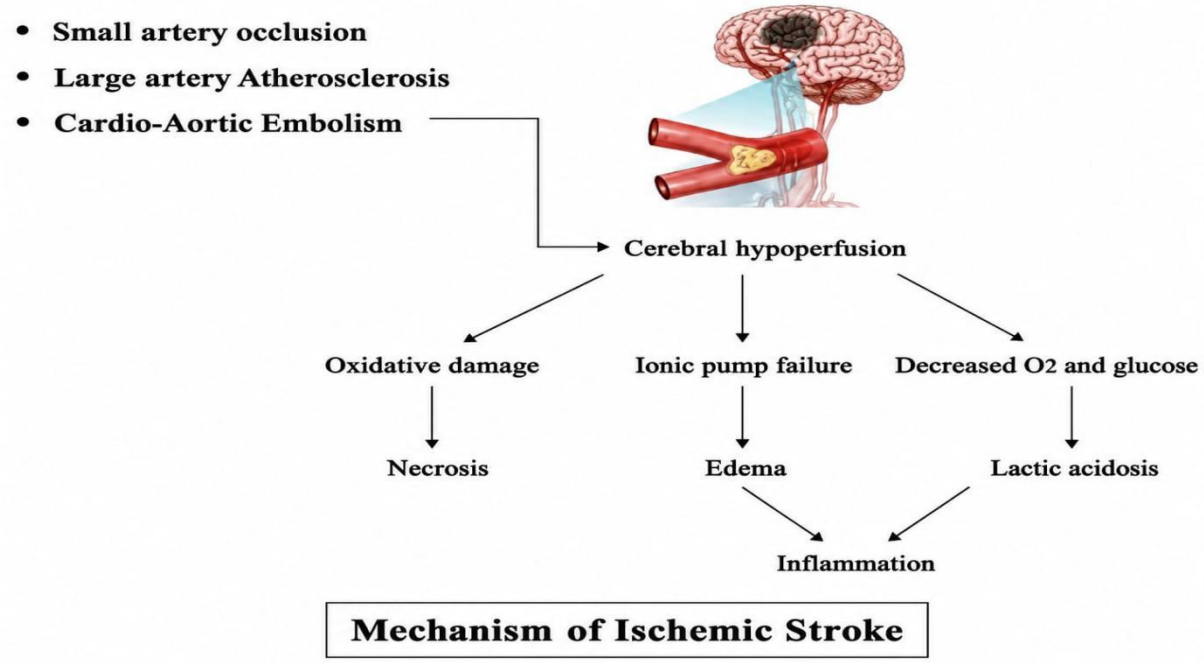

Figure 1: Pathophysiology of Ischemic Stroke

1.2 Signs and Symptoms

The clinical presentation of stroke depends on the affected cerebral circulation. Anterior circulation stroke commonly presents with unilateral weakness or sensory loss, dysarthria, dysphasia, monocular blindness, and homonymous hemianopia. Posterior circulation stroke may cause diplopia, visual field defects, nausea, vomiting, unsteadiness, impaired coordination, and bilateral weakness or sensory deficits. Non-specific symptoms include dysphagia, urinary incontinence, and reduced consciousness.[6]

1.3 Diagnosis of Stroke

Accurate diagnosis requires brain imaging to distinguish ischemic stroke from transient ischemic attack (TIA). Diffusion-weighted MRI is more sensitive than non-contrast CT for detecting early ischemic changes. Diagnostic investigations include non-contrast CT, CT perfusion, CT angiography, diffusion-weighted MRI, magnetic resonance angiography, perfusion-weighted imaging, carotid duplex Doppler ultrasound, transcranial Doppler ultrasound, and digital subtraction angiography. [7]

1.4 Risk Factors and Complications in Geriatric Patients

Advancing age is the strongest non-modifiable risk factor for ischemic stroke. Common modifiable risk factors include hypertension, diabetes mellitus, dyslipidemia, atrial fibrillation, and atherosclerosis. Polypharmacy, cognitive impairment, depression, and poor medication adherence further increase stroke risk and complicate treatment in older adults. Elderly stroke patients are more likely to experience severe disability, prolonged hospitalization, and higher mortality. Frequent complications include hemiparesis, dysphagia, speech impairment, cognitive decline, infections, and reduced quality of life. [8,9]

1.5 Stroke Management

The primary goals of stroke management are preventing recurrence, minimizing disability, and improving quality of life.[10] Secondary prevention involves lifestyle modification, including smoking cessation, healthy diet, regular exercise, weight control, and limiting alcohol intake. Effective control of hypertension, diabetes, dyslipidemia, atrial fibrillation, and obesity is essential. Non-pharmacological management includes physical, occupational, speech, and psychological rehabilitation, while selected patients may require surgical procedures such as carotid endarterectomy.

Pharmacological treatment mainly includes antiplatelet agents (aspirin and clopidogrel), anticoagulants (warfarin and heparin), and other therapies based on stroke etiology. [11,12]

1.6 Patient Counselling and Role of the Clinical Pharmacist

Patient counselling focuses on improving medication adherence, promoting healthy lifestyle modifications, providing emotional support, encouraging rehabilitation, and educating caregivers.[13] Clinical pharmacists contribute significantly through medication reconciliation, reducing polypharmacy, counselling on antiplatelet, anticoagulant, statin, and antihypertensive therapy, discharge planning, caregiver education, and reinforcing secondary stroke prevention strategies. [14,15]

1.7 Medication Adherence and Quality of Life Assessment

Medication adherence can be assessed using the Medication Adherence Rating Scale (MARS-10), a 10-item questionnaire with scores ranging from 0 to 10, where higher scores indicate better adherence.[16]Stroke-related quality of life is evaluated using the Stroke-Specific Quality of Life (SS-QOL) scale, consisting of 49 items across 12 domains assessing physical, emotional, cognitive, and social functioning. Scores range from 49 to 245, with higher scores representing better quality of life. [17]

2. METHODOLOGY

2.1 STUDY POPULATION

A prospective observational pilot study was conducted among 39 geriatric ischemic stroke patients (≥65 years) receiving antiplatelet therapy in the Department of Neurology at a multispecialty hospital in Thiruvananthapuram. Patients were equally divided into three age groups: Group I (65–74 years), Group II (75–84 years), and Group III (≥85 years), with 13 patients in each group. Written informed consent was obtained from all participants, and the study was approved by the Institutional Ethics Committee of Cosmopolitan Hospital, Thiruvananthapuram.

2.2 DATA SOURCE

Data were collected from patients' case records and direct interviews using a structured data collection form. Prescriptions were analyzed to evaluate the prescribing patterns of antiplatelet, antihypertensive, antidiabetic, and antihyperlipidemic medications, including the type, dose, and duration of therapy. Medication adherence was assessed before and after pharmacist counselling using the Medication Adherence Rating Scale (MARS-10), where scores 6–10 indicated good adherence and 0–5 indicated poor adherence. Quality of life was evaluated using the Stroke-Specific Quality of Life (SS-QOL) scale, comprising 49 items across 12 domains, with higher scores indicating better quality of life.

2.3 STATISTICAL ANALYSIS

Statistical analysis was performed using Microsoft Excel and SPSS. Descriptive statistics were used to summarize demographic and clinical characteristics, while prescribing patterns were expressed as frequencies and percentages. Continuous variables were presented as mean ± standard deviation (SD). Paired t-test was used to compare medication adherence and SS-QOL scores before and after counselling, and Pearson correlation coefficient was used to assess the relationship between medication adherence and quality of life. A p-value <0.05 was considered statistically significant, and the findings were presented using tables, bar charts, and pie charts.

3. OBSERVATION AND RESULTS

In this pilot study, 39 Geriatric patients were enrolled according to the inclusion and exclusion criteria and divided into three groups:

- **Group I**: 13 patients between age group 65-74 years
- **Group II**: 13 patients between age group 75-84 years
- **Group III**: 13 patients with age group ≥85 years

The results are as follows;

3.1 GENDER WISE DISTRIBUTION

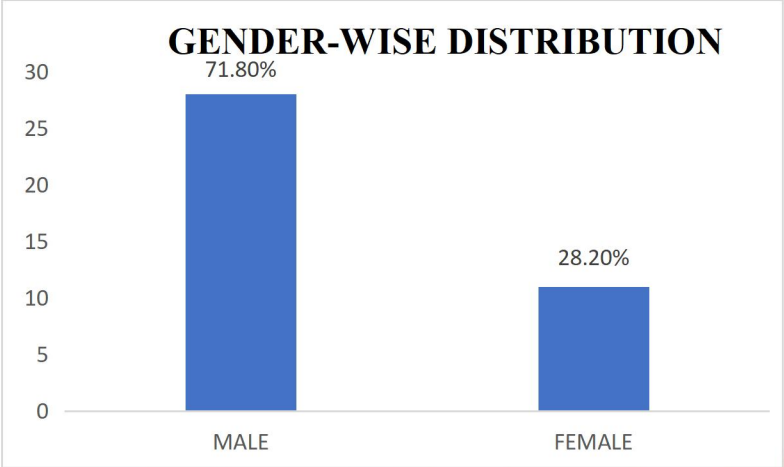

Figure 2: Gender-wise distribution

Out of 39 patients included in the study 11 (28.20%) were Females and 28 (71.80%) were Males.

3.2 AGE GROUP DISTRIBUTION BY GENDER

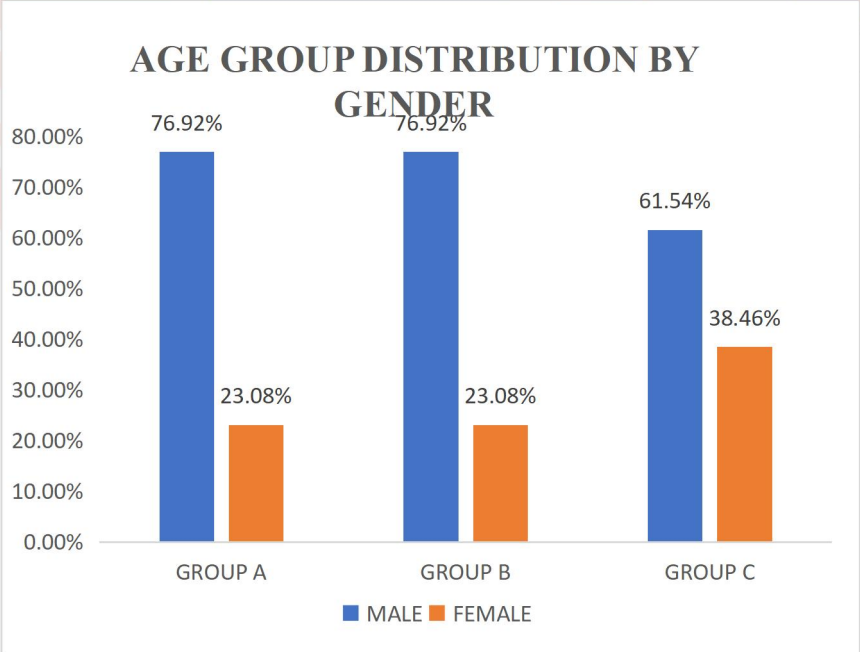

Figure 3: Age Group distribution by Gender

Among the 39 patients, males predominated across all age groups, accounting for 76.92% of Groups A and B and 61.54% of Group C. Female representation increased in the oldest age group (38.46%), although males remained the majority. Overall, the findings indicate a higher burden of ischemic stroke requiring antiplatelet therapy among elderly males.

3.3 COMORBIDITY BURDEN

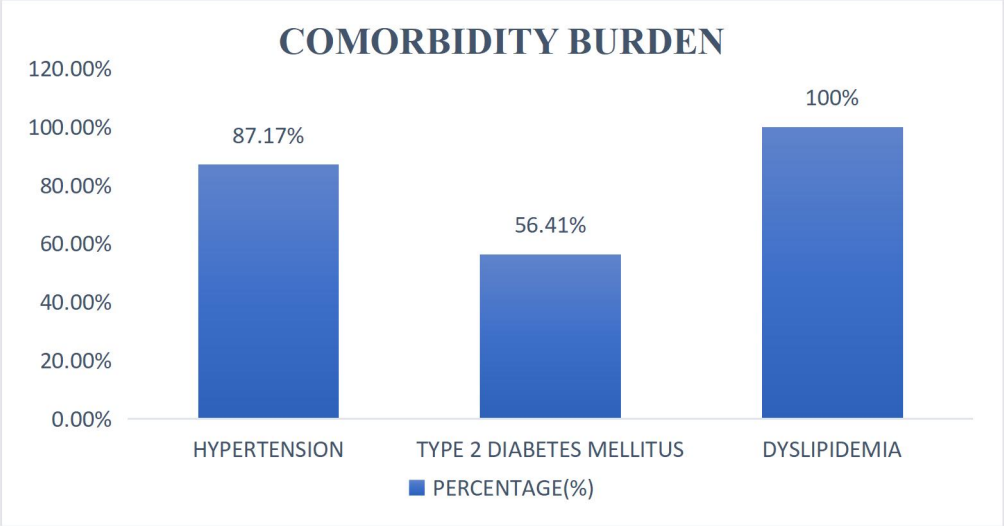

Figure 4: Comorbidity Burden

The study population had a high burden of cardiovascular risk factors, with dyslipidemia (100%), hypertension (87.2%), and type 2 diabetes mellitus (56.4%) being highly prevalent. The presence of multiple comorbidities indicates an increased risk of recurrent cardiovascular and cerebrovascular events and may adversely affect medication adherence and quality of life.

3.4 DISTRIBUTION OF COMORBIDITIES

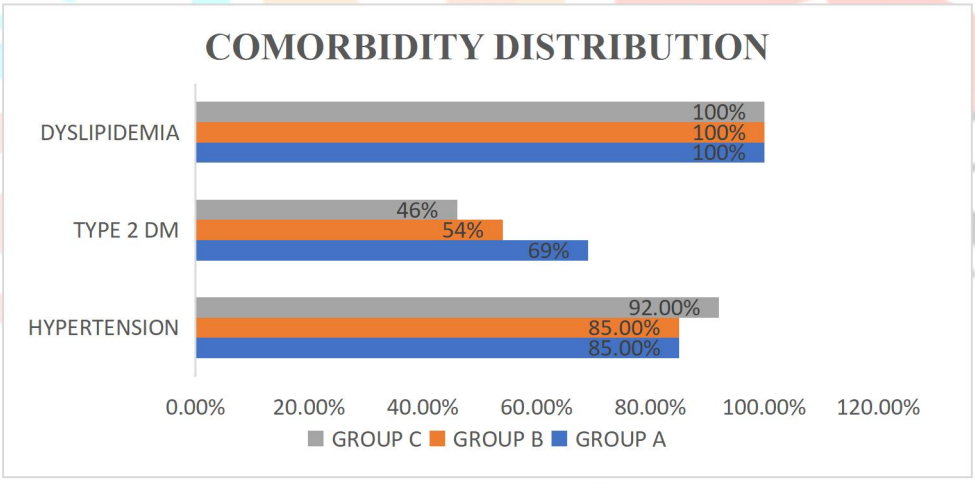

Figure 5: Distribution of Comorbidities

Dyslipidemia was the most prevalent comorbidity, affecting 100% of patients across all age groups, followed by hypertension (85–92%) and type 2 diabetes mellitus (46–69%). Hypertension was highest in Group C, while T2DM was most common in Group A. These findings highlight the high burden of vascular risk factors and the need for comprehensive management to reduce recurrent stroke risk and improve outcomes.

3.5 PRESCRIBING PATTERN

I ANTIPLATELET THERAPY

Table 1 : Antiplatelet regimen

ANTIPLATELET REGIMEN	NUMBER(n)	PERCENTAGE(%)
ASPIRIN	23	59%
CLOPIDOGREL	10	26%
ASPIRIN + CLOPIDOGREL	6	15%

The most commonly prescribed antiplatelet regimen was Aspirin 75 mg once daily, followed by Clopidogrel 75 mg once daily and dual antiplatelet therapy (Aspirin + Clopidogrel). Aspirin was the preferred agent for secondary stroke prevention, while clopidogrel was used in aspirin-intolerant patients or when an alternative was indicated. Dual antiplatelet therapy was reserved for patients at high risk of recurrent ischemic events and prescribed for a limited duration due to bleeding risk. Overall, the prescribing pattern was consistent with current clinical guidelines for secondary prevention of ischemic stroke.

❖ **ANTIPLATELET DOSE AND FREQUENCY**

Table 2: Antiplatelet Dose and Frequency

ANTIPLATELET REGIMEN	DOSE & FREQUENCY	NUMBER (n) n=39	PERCENTAGE(%)
ASPIRIN (SAPT)	75mg; 0-1-0	12	30%
	75mg; 0-0-1	3	8%
	150 mg; 0-1-0	6	15%
	150 mg; 0-0-1	2	5 %
CLOPIDOGREL (SAPT)	75mg; 0-1-0	6	15%
	75mg; 1-0-0	1	3%
	75mg; 0-0-1	3	8%
ASPIRIN+CLOPIDOGREL (DAPT)	150mg 0-1-0 + 75mg 0-0-1	3	8%
	75mg 0-1-0 + 75mg 1-0-0	2	5%
	75mg 0-1-0 + 75 mg 0-1-0	1	3%

Among the 39 ischemic stroke patients, **Aspirin monotherapy** was the most commonly prescribed antiplatelet regimen, particularly **Aspirin 75 mg once daily (30%)**, reflecting its role in secondary stroke prevention. **Clopidogrel monotherapy (26%)** was the primary alternative, mainly for patients intolerant to aspirin or requiring an alternative agent. **Dual antiplatelet therapy (Aspirin + Clopidogrel)** was prescribed selectively for a small proportion of patients with appropriate clinical indications. Overall, the prescribing pattern was consistent with guideline recommendations, emphasizing aspirin as first-line therapy while reserving DAPT for selected high-risk patients.

❖ **SAPT VS DAPT**

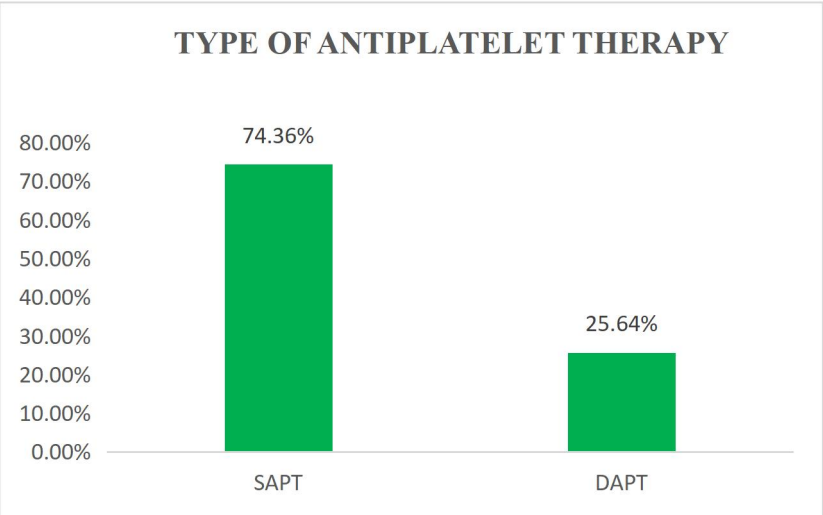

Figure 6: Type of Antiplatelet therapy

Table 3: SAPT VS DAPT

TYPE OF ANTIPLATELET THERAPY	GROUP A		GROUP B		GROUP C	
	n=13	%	n=13	%	n=13	%
SAPT	9	69.23%	11	84.62%	9	69.23%
DAPT	4	30.77%	2	15.38%	4	30.77%

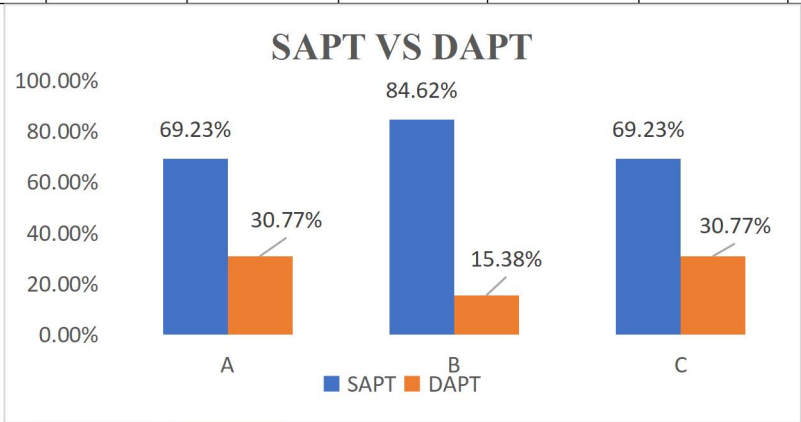

Figure 7: Bar graph representing SAPT VS DAPT in all the three groups

Single antiplatelet therapy (SAPT) was the predominant treatment across all three age groups, indicating that it was the preferred strategy for secondary prevention of ischemic stroke in geriatric patients. Group B showed the highest use of SAPT (84.62%), while Groups A and C each had 69.23% of patients receiving SAPT. Dual antiplatelet therapy (DAPT) was prescribed less frequently, with the lowest use in Group B (15.38%) and 30.77% in both Groups A and C. These findings suggest that clinicians generally favored SAPT because it provides effective stroke prevention with a lower risk of bleeding, reserving DAPT for selected patients with specific clinical indications.

II ANTIHYPERTENSIVE DRUGS

Table 4: Prescribing pattern of Antihypertensive drugs

DRUG CLASS	DRUG NAME	GROUP A		GROUP B		GROUP C	
		n=11	%	n=11	%	n=12	%
Calcium channel blockers	Amlodipine	3	27.27 %	1	9.09 %	1	8.33 %
	Cilnidipine	1	9.09 %	0	0	2	16.66 %
	Nifedipine	0	0	1	9.09 %	1	8.33 %
Beta blockers	Metoprolol	0	0	1	9.09 %	0	0
	Propranolol	0	0	0	0	1	8.33 %
	Bisoprolol	2	18.18 %	1	9.09 %	0	0
	Nebivolol	0	0	1	9.09 %	0	0
Angiotensin receptor blockers	Telmisartan	3	27.27 %	3	27.27 %	5	41.66 %
	Olmesartan	1	9.09 %	0	0	0	0

COMBINATION THERAPY							
ARB+ Thiazide diuretics + Beta blockers	Telmisartan + Hydrochlorthiazide + Nebivolol	0	0	0	0	1	8.33 %
Beta blockers +ARB	Bisoprolol + Telmisartan	0	0	0	0	1	8.33 %
CCB + ARB	Cilnidipine + Telmisartan	0	0	1	9.09 %	0	0
CCB + Beta blockers	Nifedipine + Bisoprolol	1	9.09 %	0	0	0	0
	Cilnidipine + Metoprolol	0	0	1	9.09 %	0	0
CCB + ACE inhibitors	Amlodipine + Perindopril	0	0	1	9%	0	0

The prescribing pattern showed that ARBs and CCBs were the most commonly used antihypertensive classes in geriatric stroke patients, aligning with recommendations for blood pressure control and secondary stroke prevention. Telmisartan was the predominant agent, especially in Group C (41.66%), while Amlodipine was frequently prescribed in Groups A and B. Beta-blockers and other antihypertensives were used less frequently based on individual clinical needs. Combination therapy was uncommon in Groups A and B but more frequent in Group C, reflecting the need for intensive blood pressure control in patients with multiple cardiovascular risk factors or resistant hypertension.

III ANTIDIABETIC DRUGS

Table 10: Prescribing patterns of Antidiabetic drugs

DRUG CLASS	DRUG NAME	GROUP A		GROUP B		GROUP C	
		n=9	%	n=7	%	n=6	%
ORAL HYPOGLYCEMIC AGENTS							
Dipeptidyl peptidase -4 inhibitors	Linagliptin	1	11.11%	0	0	0	0
	Sitagliptin	1	11.11%	1	14.28%	1	16.66%
	Teneligliptin	0	0	1	14.28%	0	0
Biguanides	Metformin	2	22.22%	1	14.28%	2	33.33%
Sulfonylureas	Gliclazide	0	0	0	0	1	16.66%
COMBINATION THERAPY							
α – glucosidase inhibitors + Biguanides + Sulfonylureas and Insulin	Voglibose + Metformin + Glimepiride and Biphasic Isophane Insulin	2	22.22%	1	14.28%	0	0
SGLT -2 inhibitors + Biguanide + DPP-4 inhibitors	Dapagliflozin + Metformin + Sitagliptin	2	22.22%	0	0	0	0
Sulfonylureas + Biguanides	Glimepiride + Metformin	0	0	0	0	1	16.66%
Sulfonylureas + DPP-4 inhibitors	Gliclazide + Sitagliptin	0	0	0	0	1	16.66%

α – glucosidase inhibitors + Biguanides	Voglibose + Metformin	1	11.11%	0	0	0	0
α – glucosidase inhibitors + DPP-4 inhibitors	Voglibose + Sitagliptin	0	0	1	14.28%	0	0
α – glucosidase inhibitors + Biguanides + Sulfonylureas	Voglibose + Glimepiride + Metformin	0	0	2	28.57%	0	0

The prescribing pattern demonstrated that metformin was the most commonly prescribed antidiabetic agent across all three groups, consistent with its role as first-line therapy for type 2 diabetes mellitus. DPP-4 inhibitors (linagliptin, sitagliptin, and teneligliptin) were frequently used because of their low risk of hypoglycemia and good tolerability in elderly patients. Combination therapy was more common in Groups A and B, indicating the need for intensive glycemic control, whereas Group C predominantly received simpler metformin-based regimens.

IV ANTIHYPERLIPIDEMIC DRUGS

Table 11: Prescribing patterns of Antihyperlipidemic drugs

DRUG CLASS	DRUG NAME	GROUP A		GROUP B		GROUP C	
		n=13	%	n=13	%	n=13	%
HMG-CoA Reductase inhibitors (Statins)	Atorvastatin	9	69.23%	10	76.92%	11	84.61%
	Rosuvastatin	3	23.07%	3	23.07%	2	15.38%
COMBINATION THERAPY							
Statins + Cholesterol reabsorption inhibitors	Rosuvastatin + Ezetimibe	1	7.69%	0	0	0	0

Across all three groups, statins were the primary antihyperlipidemic agents, with Atorvastatin being the most frequently prescribed drug, followed by Rosuvastatin. Atorvastatin use increased from 69.23% in Group A to 84.61% in Group C, reflecting its established efficacy in secondary stroke prevention. Rosuvastatin–Ezetimibe combination therapy was prescribed only in one patient in Group A, indicating that combination therapy was reserved for patients requiring additional lipid lowering. Overall, the prescribing pattern was consistent with current stroke prevention guidelines recommending statin-based therapy to reduce recurrent cerebrovascular events.

3.6 MEDICATION ADHERENCE

MEDICATION ADHERENCE FOR TOTAL SAMPLE BEFORE COUNSELLING

Table 12 : Adherence of overall sample before counselling

ADHERENCE	SCORE RANGE	NUMBER (n)	PERCENTAGE (%)
High Adherence	6-10	28	71.80%
Low Adherence	0-5	11	28.20%

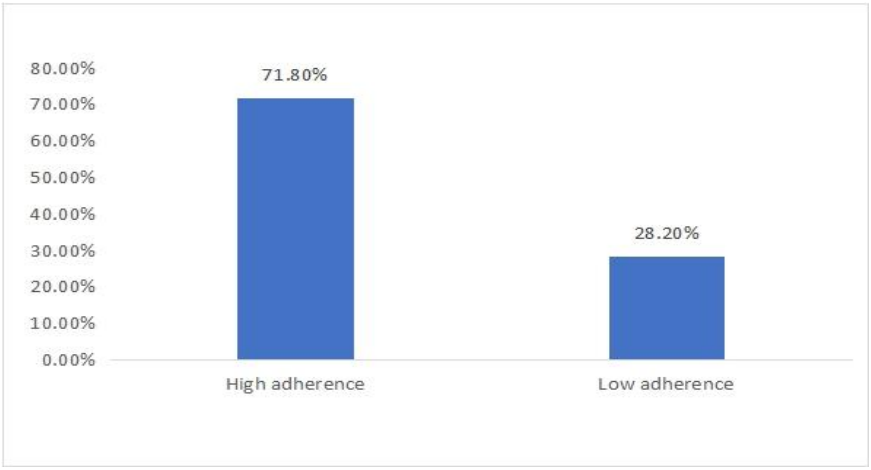

Figure 8: Bar graph representing Overall Medication Adherence before counselling

At baseline, 71.80% of patients demonstrated high medication adherence, while 28.20% had low adherence. These findings highlight the need for targeted counselling to improve adherence and optimize secondary stroke prevention in geriatric patients receiving antiplatelet therapy.

MEDICATION ADHERENCE FOR TOTAL SAMPLE AFTER COUNSELLING

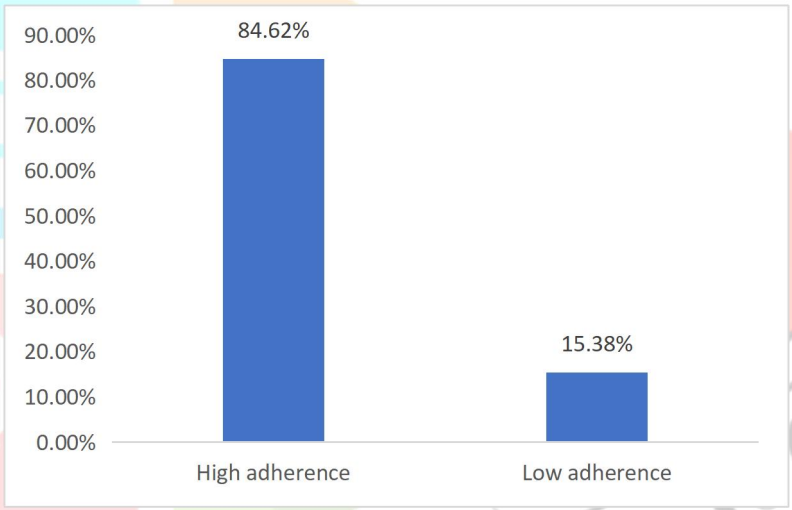

Figure 9: Bar graph representing Overall Medication Adherence after counselling

Post-counselling assessment showed improved medication adherence, with high adherence increasing from 71.80% to 84.62% and low adherence decreasing from 28.20% to 15.38%. Pharmacist-led counselling enhanced treatment understanding and may contribute to improved therapeutic outcomes and stroke prevention.

MEDICATION ADHERENCE BEFORE COUNSELLING

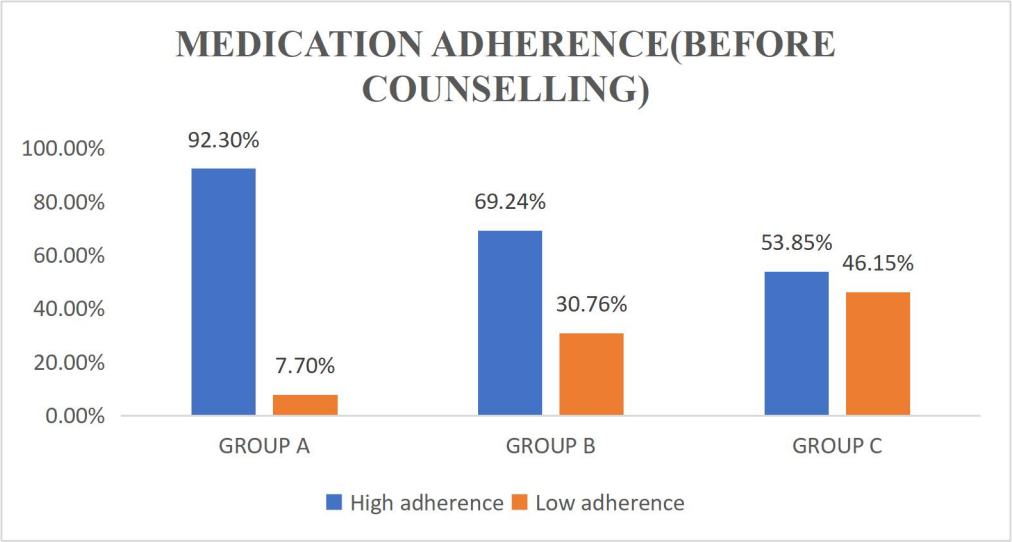

Figure 10: Bar graph representing Medication Adherence before counselling

Before counselling, Group A showed the highest medication adherence (92.30% high adherence), indicating better medication-taking behaviour among younger geriatric patients. Group B demonstrated moderate adherence (69.24% high adherence), with reduced compliance likely due to advancing age, polypharmacy, and comorbidities. Group C had the lowest adherence (53.85% high adherence) with increased non-adherence associated with functional limitations, and caregiver dependence.

MEDICATION ADHERENCE AFTER COUNSELLING

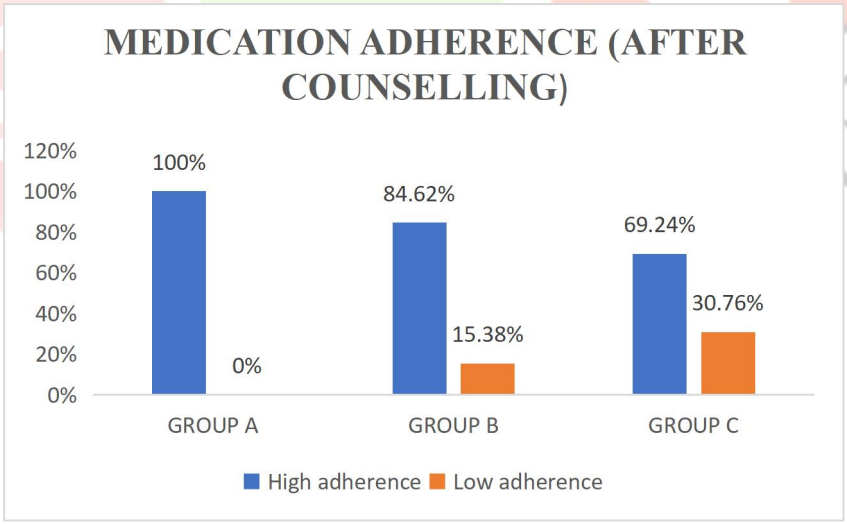

Figure 11: Bar graph representing Medication Adherence after counselling

Post-counselling assessment showed improved adherence across all age groups, with Group A achieving 100% high adherence, followed by Group B (84.62%) and Group C (69.24%). The findings indicate that counselling effectively improved patients' understanding and medication-taking behaviour. However, persistent low adherence in Group C suggests the influence of factors such as advanced age, polypharmacy, and caregiver dependence.

COMPARISON OF MEDICATION ADHERENCE

Group A

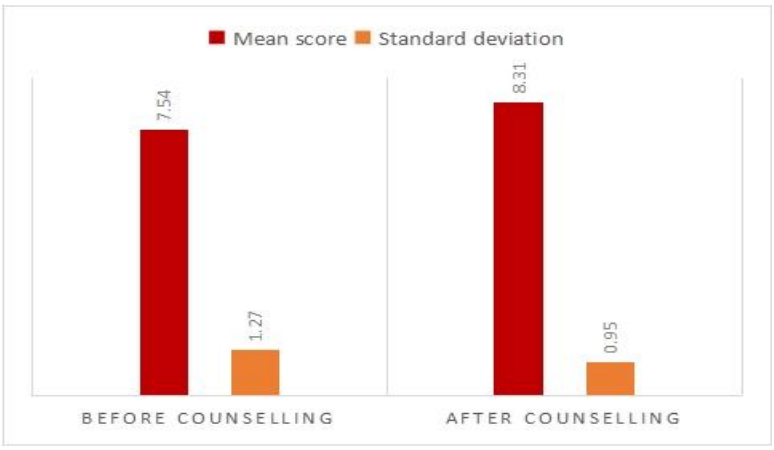

Figure 12: Assessment of Adherence of patients between age group 65-74 years

Paired t-test analysis in Group A showed a significant improvement in medication adherence after counselling ($p = 0.00058$, $p < 0.05$). This indicates that counselling had a statistically significant positive effect on adherence among patients aged 65–74 years.

Group B

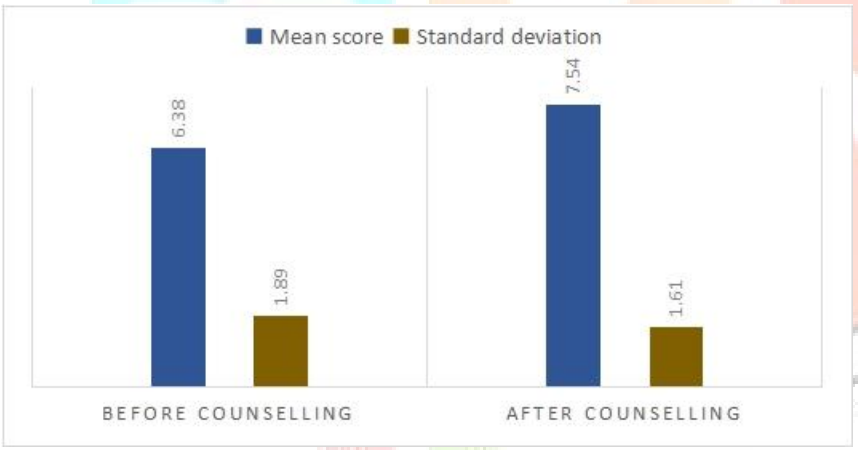

Figure 13: Assessment of Adherence of patients between age group 75-84 years

Paired t-test analysis in Group B demonstrated a statistically significant improvement in medication adherence after counselling ($p = 0.000058$, $p < 0.05$). This confirms that counselling significantly enhanced adherence among patients aged 75–84 years.

Group C

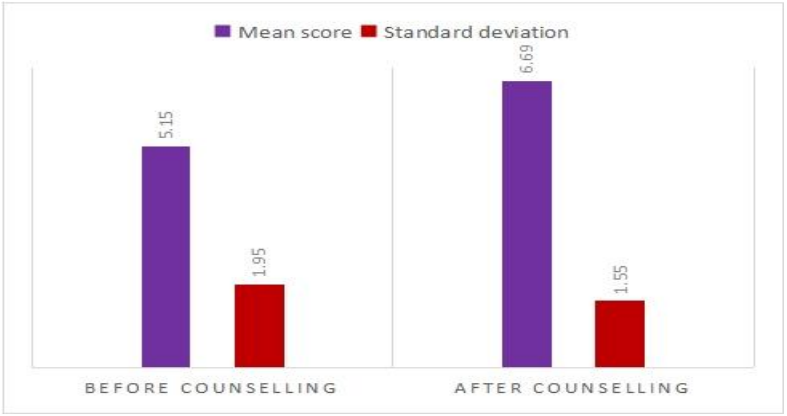

Figure 14: Assessment of Adherence of patients of age group ≥85 years

Paired t-test analysis in Group C showed a statistically significant improvement in medication adherence following counselling ($p = 0.000038$, $p < 0.05$). This indicates that counselling significantly enhanced adherence among patients aged ≥85 years.

MEDICATION ADHERENCE OF TOTAL SAMPLE

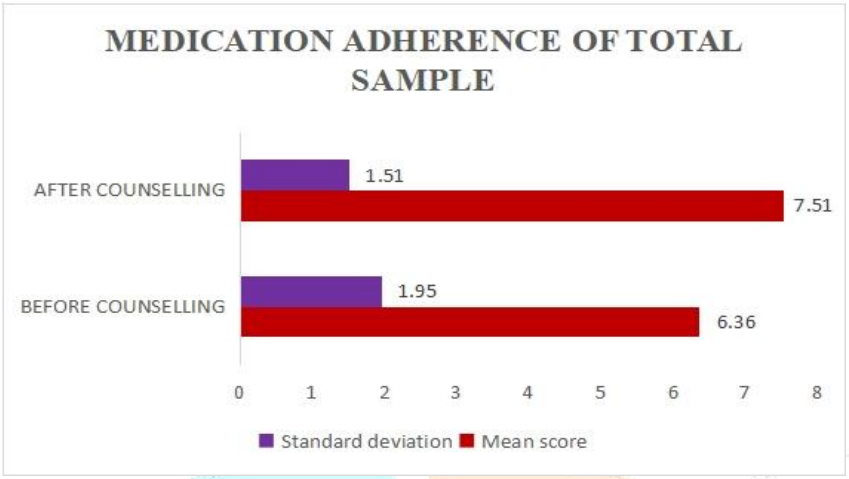

Figure 15: Assessment of Adherence of total sample

Paired t-test analysis of the total study population showed a significant improvement in medication adherence after counselling ($p < 0.001$, $p < 0.05$). This indicates that patient counselling was effective in enhancing adherence among geriatric stroke patients receiving antiplatelet therapy.

3.7 QUALITY OF LIFE

Table 13: SS-QOL SCORE FOR TOTAL SAMPLE (n=39)

SS-QOL	BASELINE	FOLLOW UP
Mean score	123.36	131.23
Standard deviation	42.68	42.02
p value<0.001		

In the overall study population (n = 39), SS-QOL scores improved from 123.36 ± 42.68 at baseline to 131.23 ± 42.02 at follow-up. Paired t-test showed a significant improvement in quality of life ($p < 0.001$), indicating that counselling positively influenced stroke-specific quality of life among geriatric stroke patients.

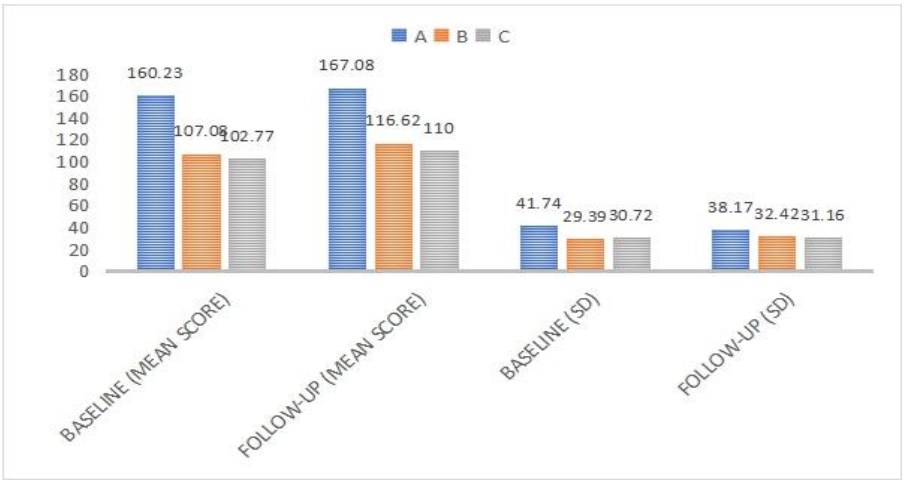

Figure 16: Bar graph representing SS-QOL assessment

Group A showed an improvement in SS-QOL score from 160.23 ± 41.74 to 167.08 ± 38.17, with a significant difference ($p = 0.0018$). Group B demonstrated an increase from 107.08 ± 29.39 to 116.62 ± 32.42, showing a highly significant improvement ($p < 0.001$). Group C showed improvement from 102.77 ± 30.72 to 110.00 ± 31.16, with a highly significant difference ($p < 0.001$). Overall, counselling significantly enhanced stroke-specific quality of life across all geriatric age groups.

3.8 COMPARISON OF MEDICATION ADHERENCE VERSUS QUALITY OF LIFE

Table 14: Comparison of Adherence vs Quality of life

ASSESSMENT	CORRELATION COEFFICIENT (r)	p VALUE
Baseline MARS vs Baseline SS-QOL	0.680	<0.001
Follow-up MARS vs Follow-up SS-QOL	0.685	<0.001

Pearson correlation analysis demonstrated a significant positive relationship between medication adherence and stroke-specific quality of life. At baseline, medication adherence was positively correlated with SS-QOL scores ($r = 0.680$, $p < 0.001$). A similar significant positive correlation was observed at follow-up ($r = 0.685$, $p < 0.001$). These findings indicate that higher levels of medication adherence are associated with better quality of life among geriatric stroke patients receiving antiplatelet therapy.

4.DISCUSSION:

This study examined the prescribing patterns and evaluated the medication adherence, quality of life and impact of comorbidities in geriatric ischemic stroke patients under Neurology department. This pilot study involves 39 patients divided into three groups based on age: Group A(65-74 years), Group B(75-84 years) and Group C(≥85years). The findings revealed significant differences in prescribing patterns, comorbidity burden, adherence levels and quality of life scores.

The study population showed male predominance (71.8%) and a high cardiovascular risk burden, with dyslipidemia (100%), hypertension (87.17%), and diabetes mellitus (56.41%) being the comorbidities. Aspirin monotherapy was the most commonly prescribed antiplatelet regimen (59%), followed by clopidogrel (26%) and DAPT (15%), reflecting guideline-based secondary stroke prevention[18]. SAPT was preferred over DAPT due to the increased bleeding risk associated with prolonged dual therapy in elderly patients. ARBs, metformin, and atorvastatin were the most frequently prescribed antihypertensive, antidiabetic, and lipid-lowering agents, respectively. Medication adherence and stroke-specific quality of life improved significantly following pharmacist-led counselling. These findings highlight the importance of individualized therapy considering age, comorbidity burden, and bleeding risk. Clinical pharmacist interventions play a crucial role in optimizing medication use and improving outcomes in geriatric ischemic stroke patients.

5.SUMMARY:

This prospective observational pilot study evaluated the prescribing patterns of antiplatelet therapy, medication adherence, quality of life, and comorbidity burden among 39 geriatric ischemic stroke patients receiving secondary preventive treatment. Aspirin monotherapy was the predominant antiplatelet regimen, while clopidogrel and short-term dual antiplatelet therapy were prescribed selectively according to clinical indications. Hypertension, dyslipidemia, and type 2 diabetes mellitus were the comorbidities, with statins, telmisartan, and metformin being the major concomitant therapies. Pharmacist-led counselling significantly improved medication adherence and stroke-

specific quality of life across all age groups. Overall, the prescribing patterns were consistent with current evidence-based guidelines for secondary stroke prevention.

6.CONCLUSION:

The study demonstrated that aspirin-based single antiplatelet therapy was the preferred strategy for secondary prevention of ischemic stroke in geriatric patients, while dual antiplatelet therapy was reserved for selected high-risk cases. Dyslipidemia, hypertension, and type 2 diabetes mellitus constituted the comorbidity burden, necessitating comprehensive cardiovascular risk management. Atorvastatin, telmisartan, and metformin were the most frequently prescribed concomitant medications, reflecting adherence to current treatment guidelines. Pharmacist-led counselling significantly enhanced medication adherence and stroke-specific quality of life in all age groups. These findings emphasize the importance of individualized pharmacotherapy, effective management of comorbidities, and continuous patient education in optimizing clinical outcomes. Although limited by the small sample size of this pilot study, the results provide valuable preliminary evidence and support the need for larger multicenter studies to further validate these findings.

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