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Original Research

To analyze the cases of stroke admitted to emergency

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***ABSTRACT*:**

Background: Cerebrovascular diseases (CVD) are the second most common cause of death and the first cause among of the causes of morbidity. The present study was conducted to analyze the cases of stroke admitted to emergency. **Materials & Methods:** The present study was conducted on 86 cases of stroke of both genders. In all patients, clinical features, presence or absence of risk factors such as hypertension, diabetes mellitus, hypercholesterolemia, history of cigarette smoking, contraceptive intake treatment, alcohol intake, sexual behaviour, a cardiac preexisting disease etc. was recorded. **Results:** Out of 86 patients, males were 50 and females were 36. Age group 20-30 years had 9, 30-40 years had 14, 40-50 years had 20 and 50-60 years had 43 patients. Common risk factors in patients was hypertension in 54, diabetes mellitus in 38, migraine in 12, smoking in 37, oral contraceptives in 15, hypercholesterolemia in 24, alcoholism in 47 and heart disease in 28. The difference was significant ($P < 0.05$). Common clinical features were hemiplegia in 67, speech trouble in 45, aphasia in 32, dysarthria in 29 and consciousness disorder in 35 patients. The difference was non- significant ($P > 0.05$). **Conclusion:** Authors found that common risk factors in patients were hypertension, diabetes mellitus, migraine, smoking, oral contraceptives, hypercholesterolemia, alcoholism and heart diseases.

Key words: Strike, hemiplegia, hypercholesterolemia

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INTRODUCTION

Cerebrovascular diseases (CVD) are the second most common cause of death and the first cause among of the causes of morbidity.[1] The occlusive type of cerebrovascular diseases that constitute 80-85% are the most common and most frequent causes of death in neurological disease. Stroke is the most common cause of epilepsy in the elderly patients and the second most common cause of dementia, and additionally the common cause of depression.[2]

Stroke is a chronic disease that patients in stroke are admitted to intensive care and have a high disability rate, have a long hospital stay and are needed continuous medical treatment. Ischemic stroke in young adults is considered as a relatively rare event, with fewer than 5% of all cerebral ischemic infarctions, it occurs on a population between 18 and 45 years old.[3] As expected, even if not as frequent as it is in elderly, stroke in young adults require an increasing interest given the fact that it interests an active part of the society, thereby the direct and indirect costs are astonishing, this is more palpable in our developing countries where the young adults are the mainstay of the economy, furthermore, it is a great occasion for physicians to study the physiopathology of stroke.[4] The etiologies of stroke among this population are various and require a full and thorough investigation. In developed countries, the mean etiologies are cervical artery dissection and atherosclerosis, when embolic cardiopathies are more incriminated in developing countries.[5] The present study was conducted to analyze the cases of stroke admitted to emergency.

MATERIALS & METHODS

The present study It comprised of 86 cases of stroke of both genders.

Data such as name, age, gender etc. was recorded. In all patients, clinical features, presence or absence of risk factors such as hypertension, diabetes mellitus, hypercholesterolemia, history of cigarette smoking, contraceptive intake treatment, alcohol intake, sexual behaviour, a cardiac preexisting disease etc. was recorded. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 86		
Gender	**Males**	**Females**
Number	50	36

Table I, graph I shows that out of 86 patients, males were 50 and females were 36.

Graph I Distribution of patients

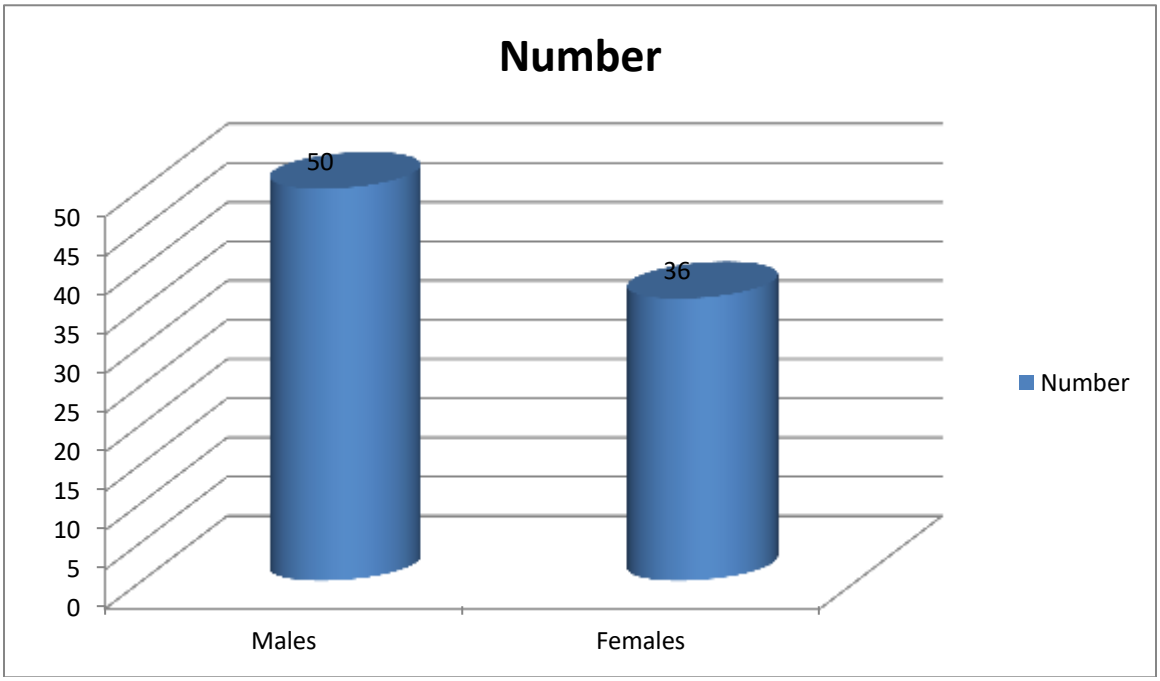

Table II Age wise distribution

Age group (Years)	Number	P value
20-30	9	0.01
30-40	14	
40-50	20	
50-60	43	

Table II, graph II shows that age group 20-30 years had 9, 30-40 years had 14, 40-50 years had 20 and 50-60 years had 43 patients.

Graph II Age wise distribution

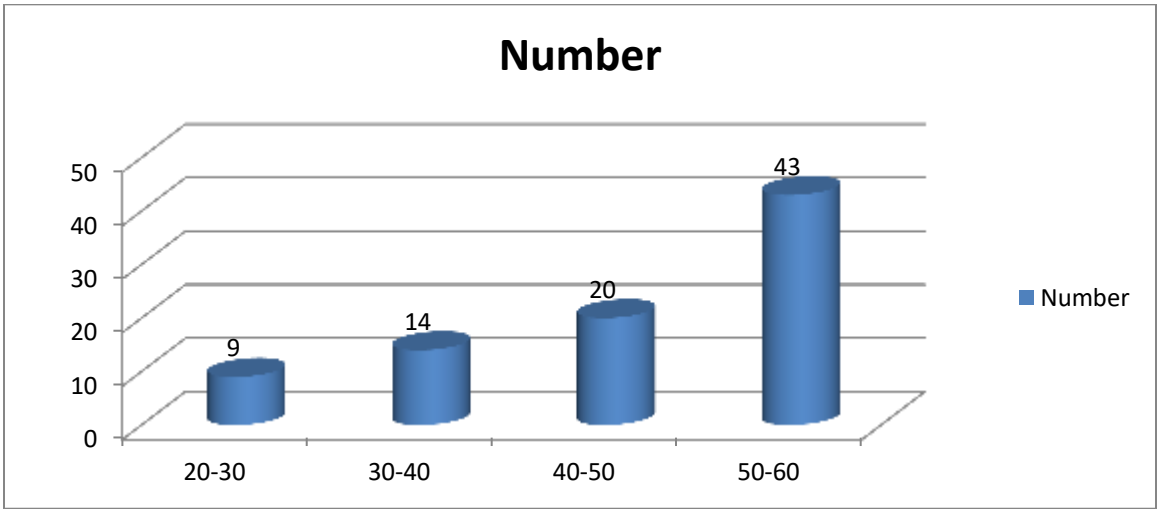

Table III Risk factors

Risk factors	Number	P value
Hypertension	54	0.01
Diabetes mellitus	38	
Migraine	12	
Smoking	37	
Oral contraceptives	15	
Hypercholesterolemia	24	
Alcoholism	47	
Heart disease	28	

Table III, graph III shows that common risk factors in patients was hypertension in 54, diabetes mellitus in 38, migraine in 12, smoking in 37, oral contraceptives in 15, hypercholesterolemia in 24, alcoholism in 47 and heart disease in 28. The difference was significant (P< 0.05).

Graph III Risk factors

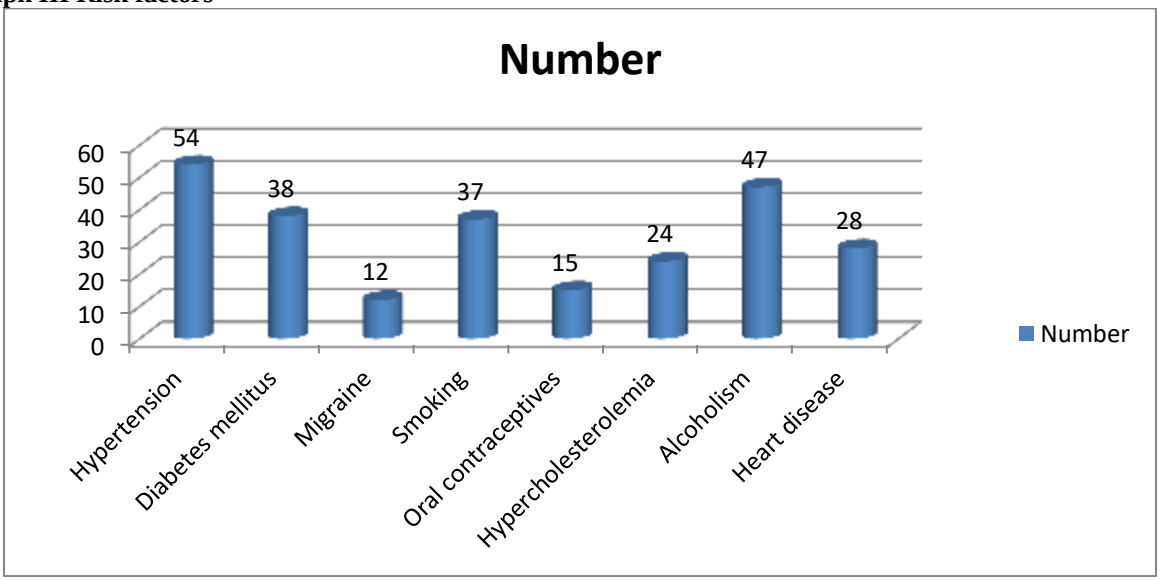

Table IV Clinical features in patients

Clinical features	Number	P value
Hemiplegia	67	0.12
Speech trouble	45	
Aphasia	32	
Dysarthria	29	
Consciousness disorders	35	

Table IV shows that common clinical features were hemiplegia in 67, speech trouble in 45, aphasia in 32, dysarthria in 29 and consciousness disorder in 35 patients. The difference was non- significant (P> 0.05).

DISCUSSION

Stroke causes emotional and financial burden on patients and their relatives. In order to reduce this burden in all countries of the world, especially in developed countries, efforts are being planned to apply to emergency department (ED) at the time which has golden value for acute ischemic stroke (AIS), to diagnose AIS in time and to activate the treatment algorithms quickly and correctly.[6] The "Stroke Team" was established for this purpose and has revolutionized the organization of patients in AIS. The neurological conditions are complex, acute and severe diseases; therefore, the patients are often referred to emergency services. Carroll et al[7] found that 78% of patients admitted to neurology service and intensive care unit were hospitalized from emergency medicine clinics. Similarly, in our study, 57.8% (523) of the patients admitted to the neurology service were hospitalized from ED. These results are important in showing that neurological emergency diseases are important in emergency department admissions. The present study was conducted to analyze the cases of stroke admitted to emergency.

In present study, out of 86 patients, males were 50 and females were 36. Mao et al[8] found that 523 patients were hospitalized to the ND from ED. The patients with cerebrovascular diseases (CVD) were 68.7% (n=357) of the hospitalized patients. The patients with acute ischemic stroke (AIS) were 74.8 % (n=267) of the patients with CVD. In AIS, the most common comorbid disease was hypertension, followed by atrial fibrillation (AF). The rate of AF was 31% in AIS. AF was newly diagnosed in 46% (38 patients) of patients with AIS, and these patients had no anticoagulation therapy. Vitamin B12 levels were found to be low in 58 (21.7%) of AIS patients.

We found that age group 20-30 years had 9, 30-40 years had 14, 40-50 years had 20 and 50-60 years had 43 patients. Tuomilehto et al[9] found that the age of our patients varied from 18 to 45 years old, 76 males and 52 females giving a male: female ratio of 1:46. Hypertension was the first risk factor involved with 63 (49.2%) cases, followed by smoking with 52 (40.6%) patients. The causes of ischemic stroke were characterized by the predominance of the cardio embolic origin with 43 (33.5%) cases, the existence of 14 (11%) cases of syphilitic arthritis, and the 52 (40.6%) cases of unknown etiologies. The authors stress the difficulties faced on supporting ischemic stroke in southern Morocco in particular when concerned by the etiological finding and the rehabilitation after the acute phase of the stroke. Our study points out the high incidence of embolic heart disease in our context. The lack of neurologists, low coverage of the population and the underestimation by physicians are factors that can explain why ischemic stroke remain undiagnosed.

In a study by Matias-Guiu et al[10] in 856 patients with AIS, they found that previous AF was 10.5% and newly diagnosed AF was 18%. In 46% of these patients, AF was newly diagnosed with AIS and these patients did not have previous anticoagulant therapy regimen. In addition, 77.8% of patients with AF diagnosis, 44.5% on ASA and 22.3% on warfarin, had stroke while receiving anticoagulant treatment. Atrial fibrillation was also detected in 50% of patients who died due to AIS. This result suggests that AF is a very important parameter in AIS, and also that patients with AF should be closely monitored and managed in terms of stroke.

CONCLUSION

Authors found that common risk factors in patients were hypertension, diabetes mellitus, migraine, smoking, oral contraceptives, hypercholesterolemia, alcoholism and heart diseases.

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