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Research Article

**METABOLIC SYNDROME IN PATIENTS WITH ACUTE  
ISCHEMIC STROKE**

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**Abstract:**

**OBJECTIVE:** To determine the metabolic syndrome in patients with acute ischemic stroke.

**PATIENTS AND METHODS:** All patients with stroke age  $\geq 35$  year of age and either gender presenting with neuroradiological features of stroke (clinically and CT scan proven including major and minor stroke) were recruited and entered in this cross sectional study. Data collected using a pretested proforma meeting the objectives of the study while all the relevant population were explored for metabolic syndrome whereas the frequency / percentages (%) and means  $\pm$ SD computed for study variables.

**RESULTS:** During six months study period total fifty patients with acute ischemic stroke were explored and studied. The frequency for male and female population was 32 (64%) and 18 (36%) with mean  $\pm$ sd for age of male and female individuals was  $58.82 \pm 6.75$  and  $57.84 \pm 8.64$  respectively. gender male 30 (60%), female 20 (40%), smoking 28 (56%), alcohol 18 (36%), residence urban 35 (70%), rural 15 (30%) and the metabolic syndrome was observed in 32 (64%) patients of acute ischemic stroke.

**CONCLUSION:** Metabolic syndrome is more prevalent in patients with acute ischemic stroke.

**KEYWORDS:** Metabolic syndrome, Ischemic stroke, cerebrovascular

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**INTRODUCTION:**

World Health Organization characterized stroke as quickly creating clinical indications of central or worldwide unsettling influence of cerebral capacity, enduring over 24 hours or prompting passing, with no obvious reason other than vascular starting point [1]. Stroke shows by different neurological signs and side effects relying upon degree, territory of contribution and the basic reason [2]. These incorporate unconsciousness, hemiplegia, paraplegia, monoplegia, cranial nerve paralysis, discourse unsettling influence and tangible impedance, and so forth. Of these, hemiplegia is the most widely recognized introduction, seen in about 90% of patients [3].

Metabolic disorder has pulled in colossal consideration as of late and in excess of five meanings of metabolic disorder have been proposed by different therapeutic social orders [4]. Among them new worldwide diabetes organization definition is appropriate for Pakistani populace as it gives distinctive abdomen peripheries for various ethnic gatherings [5]. Metabolic disorder is related with an expansion danger of intense ischemic stroke in older subjects with critical commitments from its individual segments. Within the sight of metabolic disorder, HDL cholesterol loses its defensive job against ischemic stroke [6]. The metabolic disorder is sadly a widespread condition and the disorder may speak to an autonomous hazard factor well beyond its segments that will require forceful conduct and perhaps pharmacologic administration adapted at turning away future stroke occasions.

**PATIENT AND METHODS:**

All patients with stroke age  $\geq$  multi-year of age and either sex giving neuroradiological highlights of

stroke (clinically and CT examine demonstrated including major and minor stroke) were selected and entered in this cross-sectional investigation. Information gathered utilizing a pretested proforma meeting the destinations of the examination. Definite history, physical examination and fundamental examinations have been attempted. The motivation behind the examination disclosed to the patient and informative assent taken. The examination of information will be finished utilizing suitable measurable techniques. The normal blood examination alongside explicit examinations were informed while the point by point history with respect to all subjects particularly family ancestry of hypertension, diabetes mellitus, history of weight gain, liquor use and smoking. All subjects were exposed to careful physical examination which incorporated every single fringe beat including carotids to discount atherosclerosis. Examination of abdomen and hip outlines were estimated, optic fundoscopic examination for any hypertensive changes, cardiovascular, respiratory and stomach and CNS examination. No less than three pulse estimations were taken. Every one of the information was gathered on proforma and dissected in SPSS to investigate the frequencies, rates and mean  $\pm$  SD.

**RESULTS:**

During six months study period total fifty patients with acute ischemic stroke were explored and studied. The frequency for male and female population was 32 (64%) and 18 (36%) with mean  $\pm$  SD for age of male and female individuals was  $58.82 \pm 6.75$  and  $57.84 \pm 8.64$  respectively. The demographical and clinical profile of study population is presented in Table 1.

**TABLE 1: THE DEMOGRAPHICAL AND CLINICAL PROFILE OF STUDY POPULATION**

Parameter	Frequency (N=50)	Percentage (%)
<b>AGE (yrs)</b>		
35-39	06	12
40-49	07	14
50-59	25	50
60-69	12	24
<b>GENDER</b>		
Male	30	60
Female	20	40
<b>SMOKING</b>		
Yes	28	56
No	22	44
<b>ALCOHOL</b>		
Yes	18	36
No	32	64
<b>RESIDENCE</b>		
Urban	35	70
Rural	15	30
<b>METABOLIC SYNDROME</b>		
Yes	32	64
No	18	36

**DISCUSSION:**

Occurrence of metabolic disorder in stroke was 64% in the present investigation which is equivalent to the previous examination [7]. In the present investigation, the age occurrence of stroke with metabolic disorder was more in the middle of the age bunch 50-59 years (half). In the present investigation, guys prevailed in patients of stroke with metabolic disorder and are predictable with the previous examination [8]. In our investigation, diabetes mellitus and hypertension are essential hazard factors. Anyway, hypertension is progressively basic when contrasted with previous examinations while the diabetes mellitus was likewise is by all accounts normal. In our study, both smoking and liquor utilization contributed as autonomous hazard factors and furthermore reliable with the previous examination [9]. In our examination, the midriff circuit and triglyceride parts were increasingly normal and comparative outcomes were found in previous investigation [10]. Metabolic disorder is a bunching of hazard elements of metabolic source that are as one related with higher danger of cerebrovascular infection and henceforth the need to create systems for controlling this disorder and its segment conditions [11, 12].

**CONCLUSION:**

Metabolic disorder is lamentably a widespread condition that takes steps to progressively torment society and is related with an expansion hazard for intense ischemic stroke with critical commitments from its individual segments.

**REFERENCES:**

1. ManasKotepui, BhukdeePhunphuech, NuoilPhiwklam, ChaowaneeChupeerach, and SuwitDuangmano.Effect of malarial infection on haematological parameters in population near Thailand-Myanmar border.Malar J. 2014; 13: 218.
2. MulukenBirhan. Hematological Parameters and Hemozoin-Containing Leukocytes and Their Association with Disease Severity among Malaria Infected Children: A Cross-Sectional Study at Pawe General Hospital, Northwest Ethiopia. InterdiscipPerspect Infect Dis. 2017; 2017: 8965729
3. Zeeba Shamim Jairajpuri, SafiaRana.An Analysis of Hematological Parameters as a Diagnostic test for Malaria in Patients with Acute Febrile Illness: An Institutional

- Experience. *Oman Med J*. 2014 Jan; 29(1): 12–17.
4. Mohamed Al-Salahy, Bushra Shnawa. Parasitaemia and Its Relation to Hematological Parameters and Liver Function among Patients Malaria in Abs, Hajjah, Northwest Yemen. *Interdiscip Perspect Infect Dis*. 2016; 2016: 5954394.
  5. ManasKotepui, DuangjaiPiwkhram. Effects of Malaria Parasite Density on Blood Cell Parameters. *PLoS One*. 2015; 10(3): e0121057.
  6. Abro AH, Ustadi AM, Younis NJ, Abdou AS, Hamed DA, Saleh AA. Malaria and hematological changes. *Pakistan Journal of Medical Sciences*. 2008 Apr 1;24(2):287.
  7. Rojanasthien S, Surakamolleart V, Boonpucknavig S, Isarangkura P. Hematological and coagulation studies in malaria. *Journal of the Medical Association of Thailand= Chotmaihetthangphaet*. 1992 Jan;75:190-4.
  8. Gupta NK, Bansal SB, Jain UC, Sahare K. Study of thrombocytopenia in patients of malaria. *Tropical parasitology*. 2013 Jan;3(1):58.
  9. Kayode OT, Kayode AA, Awonuga OO. Status of selected hematological and biochemical parameters in malaria and malaria-typhoid co-infection. *Journal of Biological Sciences*. 2011;11(5):367-73.
  10. Agravat AH, Dhruva GA. Hematological changes in patients of malaria. *Journal of Cell and Tissue Research*. 2010 Dec 1;10(3):2325.
  11. Lacerda MV, Mourao MP, Coelho HC, Santos JB. Thrombocytopenia in malaria: who cares?. *Memorias do Instituto Oswaldo Cruz*. 2011 Aug;106:52-63.
  12. Bakhubaira S. Hematological parameters in severe complicated Plasmodium falciparum malaria among adults in Aden. *Turkish Journal of Hematology*. 2013 Dec;30(4):394.