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Research Article

**A CROSS-SECTIONAL RESEARCH TO ASSESS THE
HYPOALBUMINEMIA INCIDENCE WITH RESPECT TO AGE,
GENDER & HYPERTENSION IN ISCHEMIC STROKE
PATIENTS****Dr. Yumna Khan, Dr. Ayesha Latif, Dr. Maham Ayub**
Mayo Hospital Lahore**Abstract:**

Objective: This study endeavoured to examine Hypoalbuminemia in the patients who suffer ischemic stroke.

Material and Methods: We conducted this research at Service Hospital, Lahore (Medicine Department) from February to August 2017. This study examined two hundred and fifty patients, for the investigation of hypoalbuminemia, who was suffering from stroke.

Results: The age of patients ranged between (44 – 53) years. A total number of one hundred and eight patients reported with Hypoalbuminemia, which was 43% of selected patient. Among the diseased male were one hundred and fifty-eight which was 63.2% of total ratio and ninety-two female patients (36.8%) reported with symptom validating the said diseased. One hundred and three patients (41.2%) lied between the age group of forty to fifty and rest of the one hundred and seven (58.8%) patients went to (51 – 60) years' age group, 87 (34.8%) forbearing patients had hypertension, irrespective of their one to one correlation of hypoalbuminemia with age and gender.

Conclusion: Close examination of the research population explored that most of the patients reported the hypoalbuminemia and mainly male patients registered persecution of ischemic stroke in discrimination with the female patient but the variance was not substantial. Additionally, the conclusion of this research also publicized that there is no substantial correlation between hypoalbuminemia with hypertension and age.

Keywords: Hypoalbuminemia, Ischemic Stroke, Hypertension.

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INTRODUCTION:

In a simple explanation, a stroke refers to the loss of balance of brain owing to the disturbance in the flow of blood circulation. Such variation and interruption in the supply of blood to the brain may cause ischemia or haemorrhage [1]. This disturbance may occur because of blockage in the blood vessels or embolism in arteries. Hypoperfusion of cerebral is the root of such interruptions in the system [2]. In the USA, near 800,000 populaces under from strokes in every year and (82% – 92%) are ischemic strokes [3]. Moreover, (20% – 40%) of the reported cases experienced with ischemic infarction that caused haemorrhage within one week [4].

Therefore, not all the strokes bear similar attributes necessarily. Because each type of stroke requires different administration of treatment [5]. As per many clinical types of research, doctors believe to anticipate the factors of Hypoalbuminemia and death cases among patients owing to a stroke [6]. The patients, undergoing with disease significantly have low serum albumin level. Around nineteen percent of stroke patients also reported Hypoalbuminemia in collaboration [7]. Therefore, it is difficult to infer the accurate ratio of Hypoalbuminemia in ischemic stroke patients by dint of insufficient existence local data. So this study aimed to acquire the original rate of frequency of hypoalbuminemia among ischemic stroke patients. End results of this research probably could help to make an estimation of the real enormity of this problem that will pave the ways leading for the better administration to limit the fatality and indisposition.

MATERIAL AND METHODS:

The selection of problem for in-depth examination required to cross-sectional type of research. We conducted this research at Service Hospital, Lahore (Medicine Department) from February to August 2017. Two hundred and fifty patients (undergoing ischemic strokes) participated as research population irrespective of their genders. This population ranged from forty to sixty years. Cirrhosis of liver among patients was not balanced (ultrasound provided these findings). Moreover, hypoalbuminemia, nephrotic symptoms, hypercholesterolemia, hematoma through CT scan of brain and protein that occurs to lose enteropathy did not become the part of the research. All the patients who reported with hypodense region on their CT scan of brain on the targeted vascular part in collaboration with any of these: incapable to say some rational stretches of speeches, disturbed reflexes, low sensations, indifferent behavior resistive attitude, incapable to maintain the balance of body, eyesight problems (varying sight from 6/6 to any

decreased level) and realization of weakness in total stretch of thirty-six hours.

As the clinical research is a societal phenomenon, therefore, it required a complete sense of ethical realization on the part of the researcher. The researcher observed all the ethical conducts during the time of data collection, interpretation and handling. Moreover, investigator seeks permission from an institutional review board. Before taking written informed consent from all patients, he interpreted all the consents to them or developing rapport and to grasp their satisfaction. Investigator collected the sample of 5 ml fasting blood within 36 hours after the ischemic stroke. He sent the sample to the laboratory for the observation of serum albumin. The researcher designed a Performa to note the outcomes of laboratory examination. He displayed the report of hypoalbuminemia in the form of Yes/No on this Performa as well as the attached demographic history of the patients. When serum albumin level reported less than 35 g/l, report displayed Hypoalbuminemia. Research portrayed the data in a quantitative form for age and the duration during which the symptoms were observable. The study gave an insight into qualitative variable including gender, hypertension and hypoalbuminemia forming in frequencies and percentage.

The researcher made divisions and stratified the population with respect to their age, hypertension, gender, and total time duration of symptoms. To determine the Post stratification investigator applied chi-square test to take an account of these, that is hypoalbuminemia. P-value is less and equal to 0.05.

RESULTS:

Study undertook two hundred and fifty patients who hospitalized themselves for the cure of their ischemic strokes. Researcher considered them as the part of his research to evaluate the level of hypoalbuminemia in them. These patients varied between the age of forty to sixty randomly. A total number of one hundred and eight (43%) diseased reported hypoalbuminemia. So, research needed to split the total number of patients into two group by dint of their dissimilar attributes; because one group did not carry considerable symptoms of hypoalbuminemia. The first group lied among numbers of years between forty to fifty and second group covered the numbers between fifty-one to sixty years. The first group encapsulated 103 patients whereas, the second group took the remaining 147 patients. Forty-eight patients reported with hypoalbuminemia from the first group. Sixty ischemic stroke patients declared the disease from the second group. The researcher did not

observe any significant association in hypoalbuminemia and the age of patients. Research declared seventy patients suffering hypoalbuminemia among 158 male patients and 38 females agonized the similar sufferings out of ninety-two. Same likewise, the association between hypoalbuminemia and the age, the researcher did not report an association between gender and hypoalbuminemia.

Similarly, from 87 hypertensive patients, forty-two patients testified hypoalbuminemia and among the rest of 163 normotensive patients, total sixty-six patients registered the apropos problem. Once again study did not find an association between hypoalbuminemia and hypertension.

Table – I: Hypoalbuminemia Frequency in Patients

	Number	Percentage
Yes	108	43
No	142	57

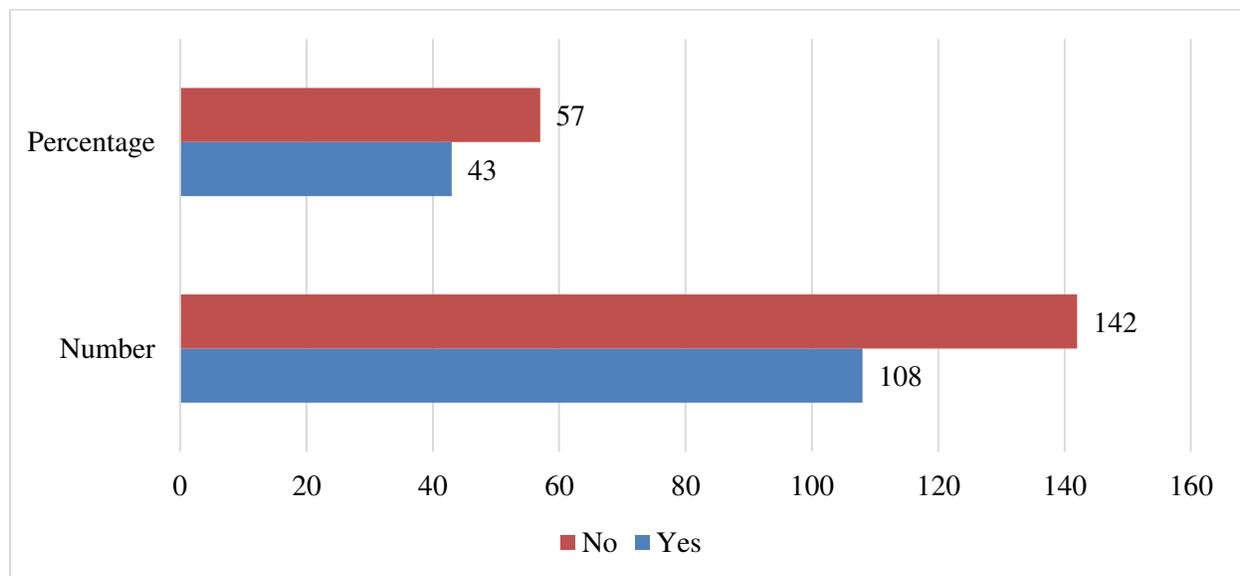
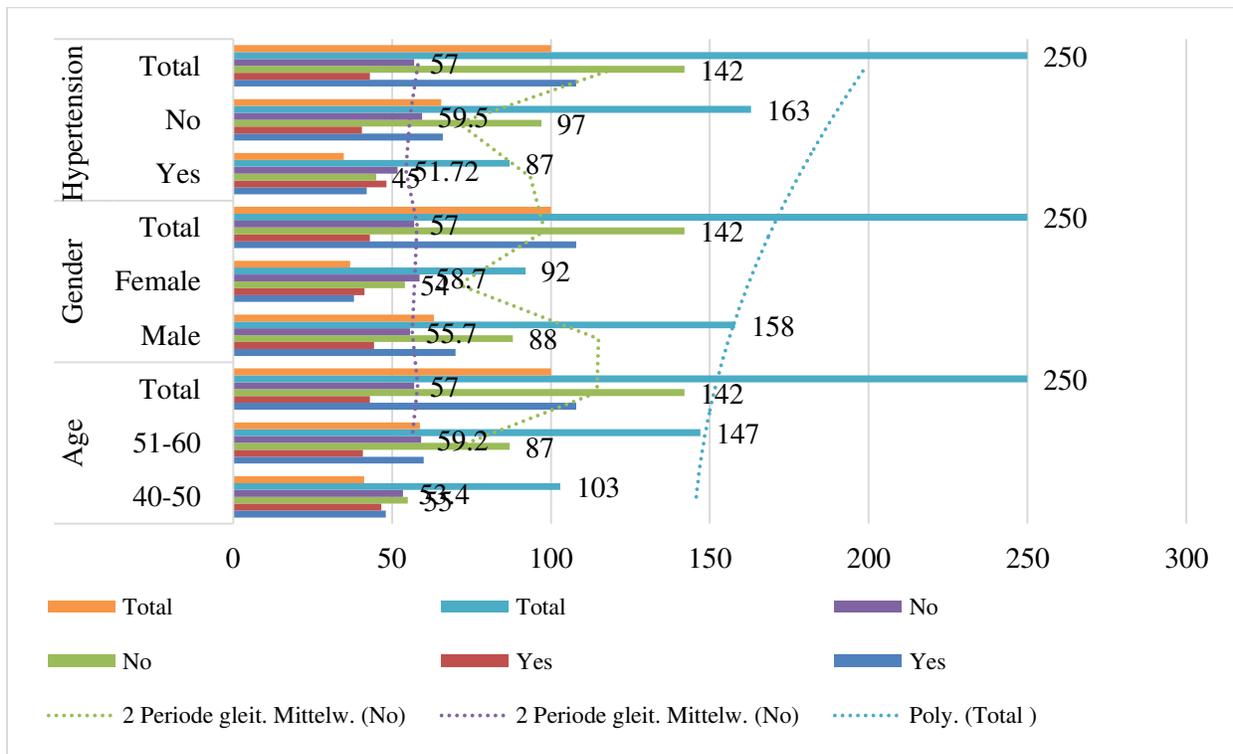
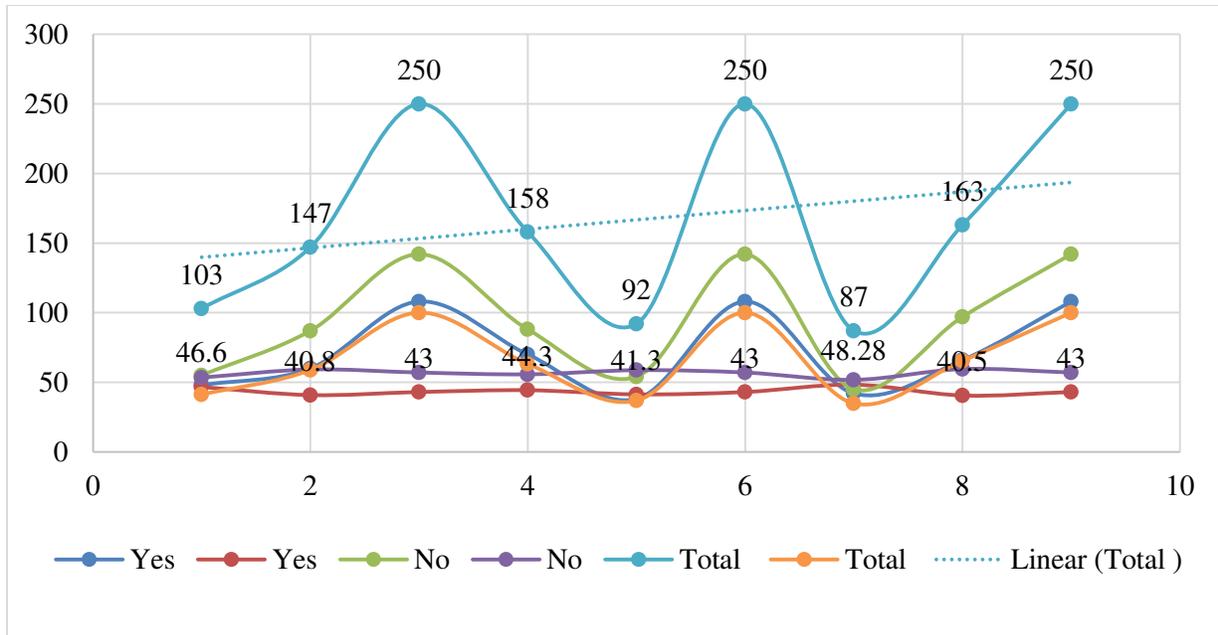


Table – II: Age, Gender and Hypertension Stratification

Stratification		Yes		No		Total		P-Value
		Number	Percentage	Number	Percentage	Number	Percentage	
Age	40 – 50	48	46.6	55	53.4	103	41.2	0.367
	51 – 60	60	40.8	87	59.2	147	58.8	
	Total	108	43	142	57	250	100	
Gender	Male	70	44.3	88	55.7	158	63.2	0.692
	Female	38	41.3	54	58.7	92	36.8	
	Total	108	43	142	57	250	100	
Hypertension	Yes	42	48.28	45	51.72	87	34.8	0.283
	No	66	40.5	97	59.5	163	65.5	
	Total	108	43	142	57	250	100	



DISCUSSION:

Review of the literature and existing facts reveal that around 700,000 public suffers from ischemic strokes and unfortunately three to five per cent lead to fatalities [8, 9]. It further elaborated that quick death is after stroke is prenominal to attack itself. On the other hand, hospitalization and some other

impediments after the declaration of the disease may also lead to fatalities at the acute period [10, 11].

Forty-three percent ischemic stroke patients of total number confirmed the occurrence of hypoalbuminemia through this research. Same likewise, Dziezic et al. indicated forty-five percent

patients with hypoalbuminemia [7]. Consequently, study reached the conclusion that majority of the patients had the tendency of hypoalbuminemia. Whereas, many other researchers reported antithetical findings as the slightest ratio of hypoalbuminemia among patients of ischemic stroke [13]. Astonishingly, one research by Davalos concluded with seven percent of research population bearing hypoalbuminemia, however, Gariballa reported nineteen percent [14 – 17].

CONCLUSION:

The cross-sectional research was the dire need of a said problem. Therefore, researcher studied the literature for the determination of research type. Additionally, all the participants were examined after collecting their informed consents. Researcher reached at the conclusion through close examination of the patients that the majority of males have a greater tendency with the frequency of hypoalbuminemia, as compare to females, hypoalbuminemia with ischemic stroke victimized the male significantly. Therefore, it also provided evidence that there is one to one correspondence among hypoalbuminemia and age and hypertension.

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