



CODEN [USA]: IAJPBB

ISSN : 2349-7750

**INDO AMERICAN JOURNAL OF  
PHARMACEUTICAL SCIENCES**

SJIF Impact Factor: 7.187

<http://doi.org/10.5281/zenodo.4405090>Available online at: <http://www.iajps.com>

Research Article

**INCIDENCE OF ASPIRATION PNEUMONIA IN STROKE  
PATIENTS: A CROSS SECTIONAL STUDY**<sup>1</sup>Dr Ateeb Ali Choudhary, <sup>2</sup>Dr Muhammad Zeshan Siddique, <sup>3</sup>Dr Zain Ali Pattal<sup>1</sup>BHU Uzman Rajanpur, <sup>2</sup>BHU Noorpur Rajanpur, <sup>3</sup>Sheikh Zayed Hospital Rahim Yar Khan.**Article Received:** October 2020**Accepted:** November 2020**Published:** December 2020**Abstract:*****Objective:** The aim of this study was to find out incidence of Aspiration Pneumonia in stroke patient.****Material and methods:** The design of this study was a Cross-sectional study. The stroke patients were followed for 30 days and findings in X-Rays chest were noted along with culture of the tracheal Aspirations. Patients aging 40-65 were included in the study.****Results:** 22% of stroke patients were affected by stroke aging 40-53. Mean age (47±5.38) and 71% of the patients aging between 53-65 mean age (59±3.19) were affected by the Aspiration Pneumonia. Overall, 25.1% of patient of stroke suffered from the aspiration pneumonia.****Conclusion:** Every 4<sup>th</sup> patient of stroke is affected by aspiration pneumonia. Every diagnosis is Pivotal to its management.****Keywords:** Aspiration Pneumonia, X-Rays, Stroke, Pivotal, Atrial Fibrillation, Tracheal.***Corresponding author:****Dr. Ateeb Ali Choudhary,**

BHU Uzman Rajanpur.

QR code



Please cite this article in press Ateeb Ali Choudhary et al, *Incidence Of Aspiration Pneumonia In Stroke Patients: A Cross Sectional Study*, Indo Am. J. P. Sci, 2020; 07(12).

**INTRODUCTION:**

Stroke is the one of the major causes of death and disability in the world. In a recent survey, 24% patients with stroke or TIAs in Pakistan. The most important cause of stroke is Arthrosclerosis. The Vaso-occlusion may be done slowly or suddenly as in case of Atrial fibrillation (Thromboembolism) and it results in loss of power of the body/organs. Patient becomes bed ridden and/or disable. Aspiration is the most common complication associated with stroke patients and it significantly increases the morbidity and mortality of the patient. The patients suffering from IHD and in ICU neurology are more prone to aspiration pneumonia.

**MATERIAL AND METHODS:**

This was a Cross-sectional study conducted in Department of medicine BHU Uzman Rajanpur and the duration of this study was from January 2019 to

December 2019. 200 patients were studied on and results were recorded with margin less than 4% or error. Patients aging 40-65 were included in the study, those patients previously having pneumonia before getting affected by stroke were not included in the study. All the patients under study were followed till 30days with repeated X-Rays chest every 5days and weekly tracheal Aspiration culture. Any notable change was recorded. Age, gender, stroke with pneumonia and other qualitative variables were calculated by frequency and percentage and mean± SD was calculated for quantitative variables.

**RESULTS:**

200 Patients were distributing in different groups according to age gender. 22% patients were 40-53years

71% patients were 53-65years, 53% males 47% female's patient with pneumonia 26%

**Table 1**

Aging	Yes	No
40-53Y	22%	78%
53-65Y	71%	29%

**DISCUSSION:**

This study was planned to record the incidence of the Aspiration Pneumonia in the stroke patients. As it is the most important cause of mortality in patients of stroke. The recorded mean age was 55±3.19, where as 106males and 94 females were included in the study. The patients suffered from stroke associated Pneumonia was 52/200 25.1% that is comparable to the recent studies done. It was recorded that 4.3-57% of Aspiration Pneumonia in cases admitted in NICUs while 18-51% among MICUs and 3.7-25% in mixed studies. 3.6-45% in stroke unit and 2.9-12% in rehabilitation cases. The temperature of the patients was taken and it was noted that febrile patients had higher percentage of SAP 45-70% as compared to Non febrile patients.

Various studies have been done on the SAP (Stroke associated Pneumonia) and rate was varying between 4.1-11.8% except a study where it was 46% that may be due to patients having mechanical ventilation, severity of the stroke and naso gastric intubation. The study is highly heterogeneous and it was hard to compare it with other studies done in ICUs as some of the researchers enroll only Patients with cerebral hemorrhage some enroll patients with sub arachnoid hemorrhage and /or AIS and the role of mechanical ventilation is also a big factor that may affect results of the study. Incidence of stroke associated in Aspiration Pneumonia reveals that this study is comparable to other studies.

**CONCLUSION:**

The incidence of Aspiration Pneumonia is quite high in stroke patient and it must be diagnosed early to manage and decrease the hospital stay of patient and avoid morbidity.

**REFERENCES:**

1. Nakagawa T, Ohru T, Sekizawa K, Sasaki H: Sputum substance P in aspiration pneumonia. *Lancet* 1995; 345:1447.
2. Walter U, Knoblich R, Steinhagen V, Donat M, Benecke R, Kloth A: Predictors of pneumonia in acute stroke patients admitted to a neurological intensive care unit. *J Neurol* 2007; 254:1323-1329.
3. Dirnagl U, Klehmet J, Braun JS, et al: Stroke-induced immune depression: experimental evidence and clinical relevance. *Stroke* 2007; 38:770-773.
4. Wilson RD: Mortality and cost of pneumonia after stroke for different risk groups. *J Stroke Cerebrovasc Dis* 2012; 21:61-67.
5. Vermeij FH, Scholte op Reimer WJ, de Man P, et al: Stroke-associated infection is an independent risk factor for poor outcome after acute ischemic stroke: data from the Netherlands Stroke Survey. *Cerebrovasc Dis* 2009; 27:465-471.
6. Masiero S, Pierobon R, Previato C, Gomiero E. Pneumonia in stroke patients with oropharyngeal

- dysphagia: a six-month follow-up study. *Neurol Sci* 2008; 29: 139–45.
7. Hilker R, Poetter C, Findeisen N, Sobesky J, Jacobs A, Neveling M, et al. Nosocomial pneumonia after acute stroke: implications for neurological intensive care medicine. *Stroke* 2003; 34: 975–81.
  8. Vermeij FH, Scholte op Reimer WJ, de Man P. Stroke-associated infection is an independent risk factor for poor outcome after acute ischemic stroke: data from the Netherlands Stroke Survey. *Cerebrovascular Dis* 2009; 27:465-71.
  9. Roger VL, Go AS, Lloyd-Jones DM. Heart disease and stroke statistics - 2012 update: a report from the American Heart Association. *Circulation* 2012;125: e2-e220.
  10. Kamal AK, Itrat A, Murtaza M, Khan M, Rasheed A, Ali A. The burden of stroke and transient ischemic attack in Pakistan: a community-based prevalence study. *BMC Neurol* 2009; 9:58
  11. Barsic B, Beus I, Marton E, Himbele J, Klinar I. Nosocomial infections in critically ill infectious disease patients: results of a 7-year focal surveillance. *Infection*. 1999; 27:16–22.
  12. Dettenkofer M, Ebner W, Hans FJ, Forster D, Babikir R, Zentner J, Pelz K, Daschner FD. Nosocomial infections in a neurosurgery intensive care unit. *Acta Neurochir (Wien)*. 1999; 141:1303–1308
  13. Silver F, Norris J, Lewis A, Hachinski V. Early mortality following stroke: a prospective review. *Stroke*. 1984; 15:492–496.