



ORIGINAL RESEARCH PAPER

General Surgery

EPIDEMIOLOGY OF HEAD INJURY IN REWA.(MP)

KEY WORDS: Head Injury, epidemiology

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ABSTRACT

INTRODUCTION- Head injury is major public health concern because it can happen to anyone we know, love, or care about. Up to 50% of trauma deaths are due to head injuries but these account for most cases of permanent disability after injury.

AIMS & OBJECTIVES: To know the incidence and distribution of head injury due to various causes & according to age, sex, occupation, site of event, time and season.

METHODOLOGY- The present study was conducted in patients of head injury. After initial required in emergency, particulars of the patients, date and time of incidence and the admission were recorded, detailed history regarding accident were recorded. The patients were treated conservatively or operatively as required

RESULT- Incidence of head injury was 2.82%. Commonest age group was 21-30 years. Maximum patients had GCS 13 to 15 & stay in hospital was 1 to 3 days. 38.66% of patients were under the influence of alcohol. 84.66% of patients were managed conservatively.

CONCLUSION- Head injury is the greatest threat to humanity, not only because of the toll but also in terms of disability, deformity and loss, further aggravating agony, need to be eliminated such agony by implementation of education and training among public, medical personnel and administration.

INTRODUCTION-

It is a silent epidemic of modern times. Its incidence is steadily increasing and is one of the major cause of morbidity, mortality, and loss of productivity in resource-limited settings, particularly among younger age groups in the second to fourth decades of life. At the global level, it is estimated that the annual incidence and mortality from head injury is 200 and 20 per 1,00,000 per year, respectively¹. The most common cause of head injury normally reported in our country are road traffic accidents (RTA), followed by falls and assaults. After injuries occur, many challenges exist for appropriate and effective pre-hospital and trauma care including an inadequate transport system, and logistical and infrastructure deficiencies. The survivors of injuries had various problems in day-to-day life affecting almost every sphere of life. The financial loss to the nation is estimated at about Rs.350/-crores annually^{2,3}. Multicentric outcome studies have shown that 35% of severe head injury patients will die, 1-5% will remain vegetative and 5-18% will continue to be severely disabled six months after TBI^{4,5}.

In the work entitled "Epidemiology of head injury in Rewa" an attempt has been made to related head injury with respect to the circumstances of injury to formulate the safety measure and to strengthen the facilities available to treat the head injury patient in order to reduce morbidity and mortality due to head injury.

AIMS AND OBJECTIVES-

- To know the incidence of head injury due to various causes.
- To study the distribution of head injury according to age, sex and occupation.
- To study the distribution of head injury patients according to site of event, time and season.
- To study pattern of head injury due to various cause.

METHODOLOGY-

total 300 patients were studied which were admitted in emergency, OPD and Casualty at Sanjay Gandhi Memorial Hospital, Rewa, MP. Study type was prospective observational. Study was done over the period of 1 year from 1st June 2017 to 31st May 2018. After detailed history, examination investigations, and management of patient data was recorded and analysis of data done to get results.

RESULTS-

Table 1: Distribution of patients according to mode of trauma

S.No.	Mode of trauma	No.	%
1	RTA	205	68.33
2	Fall	58	19.33
3	Assault	37	12.33
Total		300	100

Table 2 : Condition of Road

S. No.	Condition of Road	No. of Cases	Percentage (%)
1	Good	39	19.02
2	Average	77	37.56
3	Bad	89	43.41
Total		205	100.0

Table 3: Distribution of cases according to Coma Scale

S. No.	Coma Scale	No. of Cases	Percentage (%)
1	3 to 5	46	15.33
2	6 to 8	34	11.33
3	9 to 12	44	14.66
4	13 to 15	176	58.66
Total		300	100.0

Table 4 : Distribution according to history of alcohol consumption at the time of injury

S.No.	Alcohol Intake	No.	%
1	Yes	116	38.66
2	No	184	61.33
Total		300	100

DISCUSSION-

The factors that contribute to road accidents are excessive speed, defective roads, rapid urbanization, disregard for traffic rules, and lack of infrastructure.

Head injuries as a result of fall from height are more common in young children, in adults with alcohol intoxication and the elderly. With older adults, falls are a common cause of head injury, as they are more likely to fall owing to their inability to respond quickly enough to protect the head from injury. In present study head injury patient 205(68.33%) were due to RTA, 58(19.33%) due to fall from height and 37(12.33%) were due to assault. Between 30-50% of people with head injury were injured while they were drunk as per our study. In study

by **Dikmen SS (1995)**⁶ & **Olli Savola (2005)**⁷ alcohol abuse was 42% & 51% respectively. In present study the maximum cases occurred during summer (35.26%) followed by winter and rainy 32.98% and 31.59% respectively. **Pramod Verma, K.N.Tiwari (2004)**⁸ in their epidemiological study of RTAs in Delhi have found that among 680 traffic injuries Maximum number of injuries occurred in July, August and September. Wearing a motorcycle helmet correctly can reduce the risk of death by almost 40% and the risk of severe injury by over 70%. In the present study maximum vehicle were at fast speed (47.27 and 52.63%) when the accident occurred. **Vinodrajan (2004)**⁹ maximum vehicle were at fast speed (43.15%)

Mortality rate in 300 cases of head injury patients was 19.8% as 58 patients expired in our study. **Vinodrajan (2004)** showed overall mortality of 7%.

Maximum patient recovered (67%) from injury. Next common group was a patients who were transferred to other speciality (7.3%). Mortality among head injury patient was 19.3%.

CONCLUSION-

In present study annual incidence of patient of Head injury in Rewa was 2.82 % during the period of study. Male-Female ratio was about 3:1. Males were common victim in the age group of 21-30 years. Most of the head injury patients were labourers peoples (27.00%). Majority of accidents occurred in evening 4 PM to 8 pm (38.66 %). Maximum cases occurred during summer (35.26%). Maximum vehicles were at fast speed >60km/hr (49.75%) when the accident occurred. Majority of cases 71.87% were recovered from the injuries. 9.8% patients expired during the course of treatment. 7.95% cases were transferred to other department.

It is concluded that head injury the greatest threat to humanity, not only because of the toll but also in terms of disability, deformity and loss, further aggravating agony, need to be eliminate such agony by implementation of education and training among public, medical personnel and administration

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