

Pattern of injuries presenting at health facilities in Makkah and Mina during hajj 1422 H.

Annually, more than two million Muslims from over 159 countries perform hajj.¹ During Hajj, hajjees are exposed to the risk of injuries as a result of a complex interaction of overcrowding, unknown environment, ignorance and carelessness. Heat also plays a role in increasing the risk of injuries. The objectives of this study were to describe the pattern of injuries presenting at selected health facilities in Makkah and Mina during the hajj season of 1422 H.

A cross sectional study design was used to conduct this study. A questionnaire was designed to obtain information on age, sex, nationality, health facility, cause of injury, time and site of injury, treatment, date of admission, discharge and referral, if any. Data was collected by review of emergency room log-books of the selected medical facilities, in the period from 1 to 12-12-1422 H, in both Makkah and Mina. Five locations were selected: Al-Haram dispensaries (five in number working as outpatient clinics in the Holy Mosque), Ajjad hospital, Al-Noor hospital, King Abdul Aziz hospital, Mina General Hospital and 5 dispensaries in Mina.

The total number of cases was 1331; 1034 (77.7%) were hajjees, and 289 (22.3%) were non-hajjees. The total number of hajjees in this hajj season was 2371468, and an incidence rate of injuries of 5.61/ 10000 was calculated.

Among Hajjees 797 (71.1%) were males and 237 (22.9%) were females (male to female ratio of 3:1). Their mean age was 47 years (SD 16.5). Among non-hajjees there were 239 (82.7%) males and 50 (17.3%) females (male to female ratio of 5:1). The mean age was 26.4 years (SD 20.1).

Among hajjees, the highest incidence rate of injury occurred in the 33-44 year age group, (331 cases or 32.9%) and the lowest was in the 15-29 year age group (140 cases or 13.9%). Among non-hajjes the highest rate occurred in the 15-29 age group (133 cases or 64.9%) and the lowest in the 60 and over age group (10 cases or 4.9%).

The health facility that received the highest number of injured hajjees was

Al-Haram dispensaries (58.7%), while Al-Noor hospital received the highest number of injured non hajjes (66.8%). Among hajjees, the highest frequency of injuries occurred among those of Other Arab countries (OAC) (514 cases or 49.7%), followed by Indian subcontinent hajjees (ISC) (204 cases or 19.7%). Among non hajjees, the highest frequency of injuries was among the Gulf cooperation council group (GCC) (71.6%), and the lowest was among Central Asian hajjees (1%).

Regarding cause of injury (table 1), it was not documented for 49.9% of hajjees and 40.1% of non-hajjees. The most common type of injury among male hajjees was cut wounds (31.7%), and among female hajjees was fractures (25.7%). The most common type of injury among male non-hajjes was cut wounds (34.9%), and among female non-hajjes was contusions (25.4%).

The major limitation of this study was the unsatisfactory quality of data documented in the Emergency Room log-books, which may be attributed to the high work load of physicians and medical personnel in the selected medical facilities, and insufficient time to complete the forms, especially during Hajj season.

– Reported by: Dr. Waheeb Al Jazzar, Dr. Khaled Al Mudemeigh, Dr. Randa Nooh, Dr. Abdul Jamil Choudhry, Dr. Abdullah M Rabeah (Field Epidemiology Training Program).

Editorial notes: During hajj, there

are certain activities that need to be performed at the same time by all hajjees. The sites where these activities take place are usually very crowded and hajjees are given to pushing each other, which increases the risk of injury. Injury may occur to Hajjees sleeping in Al-Haram, as a result of tripping over them. In Mina, hajjees push each other to reach Al Jamarat, they may sleep on the street or under bridges, which increases the risk of injury.

In a study conducted by Al Mazam and co-workers investigating the pattern of fractures in Makkah during the hajj and non-hajj seasons of 1417/ 1418 H, the incidence of fractures was reported to increase three fold during hajj in comparison to control months. Most of the injuries occurred among hajjes over 60 years of age, and the incidence of fractures was higher among males (79%) than females (21%).²

The problem of injuries during hajj may be handled by adequate health education of hajjees. Doctors and health workers in medical facilities during hajj season have to be instructed on the importance of completing the hajj form supplied by MOH during that time.

References:

1. Custodian of the Holy Mosque Institute of Hajj Research.
2. Al Mazam A, Al Bushra H. Pattern of fracture in makkah during hajj season 1417-1418. (Unpublished).

Table 1: Gender wise type of injury among hajjees and non-hajjees

Type of injury	Hajjees		Non-hajjees	
	Males	Females	Males	Females
Contusion	26.90%	25.30%	27.90%	25.40%
Burn	4.60%	3.80%	3.60%	3.80%
Trauma	20.60%	25.30%	20.20%	24.70%
Fracture	10.20%	25.70%	8.80%	23.30%
Cut wound	31.70%	19%	34.90%	18.80%
Laceration	9.80%	7.20%	9.30%	7.70%
Abrasion	13.10%	6.80%	14.70%	8.40%
Penetrating	1.40%	1.70%	1%	2.10%
Crushing	4.70%	4.60%	5.40%	4.90%