



ABSTRACT

Introduction

Trauma is one of the main causes of the global burden of disease and fractures are a major component of these traumatic injuries. In Sri Lanka, too, injuries and trauma are a major health problem and had been the leading cause of hospital admissions since 1995. However, very few studies have been conducted in Sri Lanka to analyze the fracture burden. Sustaining fractures can lead to short term and long term effects on the lives of the patient and their families, and also result in physical and psychological disabilities, some with permanent effects. Taking this need into consideration, this study was designed to describe the socio-demographic features and their association with the characteristics and causes of the fractures in patients attending a tertiary care post-operative Orthopaedic clinic in the Central province of Sri Lanka during a period of one month, and to describe the effects and disabilities they had to face as a consequence of these fractures and their management.

Research Methodology

A Descriptive, Cross Sectional study was conducted on a sample of all eligible follow-up patients at the Orthopaedic Post Surgical Clinics of the General Hospital, Kandy, within the month of August 2011. After obtaining the ethical clearance, the primary data were collected by trained interviewers using a structured, pre-tested questionnaire, while secondary data were collected by the investigator using a data sheet. Informed, written consent was obtained from all patients prior to data collection. Statistical significance was assessed using Chi-squared test, One-way ANOVA and Student t-test, with the probability (P) values, at 95% level of confidence. Disabilities were assessed using “KATZ Basic Activities of Daily Living Scale” and “EQ 5D Questionnaire”.

Results

In the 502 respondents, the mean age was 34.75 years, and the age range was 1 to 85 years. Males were 67.9%, with a higher risk of fractures until 50 years. Most patients (64.5%) had single fractures, of which 46.2% were in lower limb and 45.4% were in upper limbs. Commonest fractures in children were in upper limbs, while lower limb fractures were

commoner in adults. Statistically significant associations were seen between the age and fracture site and between the sex and number of fractures in a patient, with males sustaining more multiple fractures. Main causes of fractures were falls (52.9%), Road Traffic Accidents (32.7%) and Occupational injuries (7.6%). Falls were more among children and elderly, while Road Traffic accidents were more among adults. Age and sex of patients showed statistically significant associations with the causes of fractures.

Sleep, loss in school days and working days were major effects, while statistically significant associations were seen between the duration of hospital stay and the number of fractures sustained, and also with the site of fractures. The site of Fractures and the number of fractures showed statistically significant associations with disabilities in Bathing, Dressing, Toileting, Bladder and Bowel control, Mobility, Self care, Daily activities, Pain or discomfort and Psychological symptoms.

Conclusions

Most fracture patients were young adults, while another quarter of them were children. Males were affected more than females, but more elderly females had sustained fractures. Nearly half the adults belonged to the labour force of the country. Most were single fractures, and lower limbs were more affected than upper limbs. Multiple fractures also mostly included the limbs. Upper limb fractures were commoner among the children while adults had lower limb injuries.

Causes were mainly falls, Road traffic accidents, Occupational injuries and sports injuries. Falls were commoner among children and elderly, while road accidents were common among adults. Multiple fractures and lower limb fractures needed a longer hospital stay. Additional help from bystanders were needed by most patients. The disabilities encountered depended mainly on the number and the site of fractures. Mobility, Self care, daily activities and psychological effects were significant disabilities encountered. However, long term follow up studies are needed to identify specific causes, effects and disabilities faced by these patients with fractures.

Key Words: Fractures, Disability, Circumstances, Sri Lanka