

Traumatic spinal cord injuries in Botswana; etiology, clinical characteristics and mortality

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Claes



Typical house and yard in Type of wheelchair Botswana. Difficult terrain commonly available, to maneuver a wheelchair usually used without in. cushion.



The free wheel is used to accommodate the tough and sandy terrain in Botswana.

Conclusions

- Road traffic crashes (RTC) were the primary cause for a traumatic spinal cord injury (TSCI), mainly due to burst tire
- Tetraplegia was more common than paraplegia
- In-hospital mortality was high

This study contributes to new knowledge that can be of importance for promoting prevention and to continue to improve specialized care and rehabilitation of TSCI in Botswana and other low and middle income countries.

Introduction

Botswana, the size of France and a scarce population of 2 million, has changed from one of the poorest countries, to a middle income country. There is a lack of epidemiological studies in persons with spinal cord injury (SCI) from low and middle income countries.

Aim

To describe the epidemiology of TSCI in Botswana with a specific focus on RTC.

Results

- 49 persons with TSCI were included
- 71% were males
- Mean age was 33 years, range 4-81
- Tetraplegia was more common than paraplegia (59/41%)

Etiology

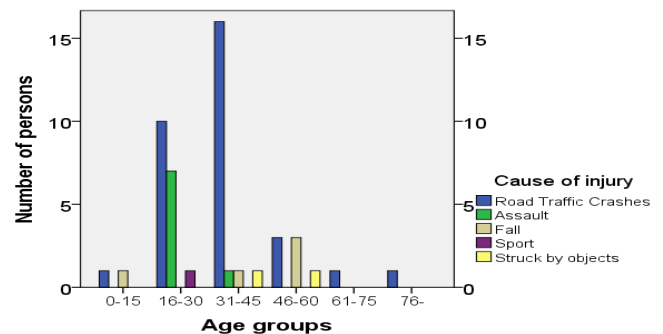
- RTC was the primary cause of TSCI
- Assault was the second most common cause, mainly due to stabbing
- Falls were the third most common cause, mainly work related

Clinical characteristics

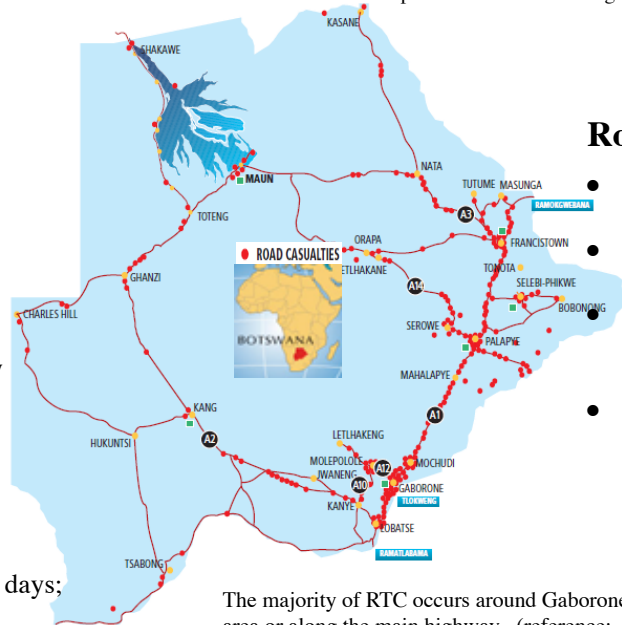
- 35 patients sustained a vertebral fracture
- 30 patients underwent spinal surgery
- Mean time between injury and surgery was 13.7 days; 11 days for men and 19 days for women

Mortality

- In-hospital mortality for newly injured was 20%
- Time of survival was 2-50 days
- All except one had a tetraplegia



Cause of TSCI by age groups. All injuries, but one, due to assault were in the age group 16-30 yrs, while RTC was overrepresented between the age of 31-45 yrs.



The majority of RTC occurs around Gaborone area or along the main highway (reference: Motor Vehicle Accident-Fund).

Road Traffic Crashes

- 71% were involved in single vehicle accidents
- Primary cause was burst tires
- Second cause was hitting or avoiding animals on the road
- The majority of injured were passengers

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