

## Clinical aspects of War Injuries in the Emergency Reception Department of the Sominé Dolo Hospital in Mopti (Mali)

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### Abstract

### Original Research Article

The security crisis experienced by our country in 2012 resulted in numerous injuries and deaths linked to terrorist attacks and this required a reorganization of the care of the injured. The objective of this work was to describe the clinical aspects of war injuries at the Sominé Dolo hospital in Mopti (Mali). We realized a single-center descriptive cross-sectional study relating to the files of patients suffering from war injuries and admitted to the emergency reception department of the Sominé Dolo hospital in Mopti (Mali) during the period between January 1, <sup>2020</sup> and October 31, 2022. This hospital represents the largest reference structure in central Mali with per year. The frequency of war injuries was 2.34%. The average time to admission of our patients before 24 hours was 80% and after 24 hours it was 10%. The injured who received pre-hospital care represented 95.13%. Each patient had an average of 2.25 lesion locations. In 79% of cases, it was a gunshot wound and in 15% of cases it was an injury from improvised explosive devices. The sites of the lesions were: the upper limbs (50.90%), the lower limbs (45%), the cephalic region (14.60%), the abdomen (11.80%), the thorax (6%), the spine (7.10%). The mortality rate was 0.39% in the emergency room.

**Keywords:** clinical aspects, injuries, war.

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## INTRODUCTION

The Sominé Dolo Hospital in Mopti constitutes a reference structure for war wounded in the fifth region of Mali.

The security crisis experienced by our country in 2012 resulted in numerous injuries and deaths linked to terrorist attacks and this required a reorganization of the care of the injured [1].

This is how the country's health authorities and the International Committee of the Red Cross (ICRC) set up a bridge for the care of victims in health structures in the center of the country, which enabled the evacuation of many injured people to the Sominé Dolo hospital in Mopti.

In Mali, very little data exists on war wounded and no study has been carried out on this subject at the Sominé Dolo hospital in Mopti in central Mali, which is why this work was initiated.

This work can help improve the means and techniques for caring for war wounded.

The objective of this work was to describe the clinical aspects of war injuries at the Sominé Dolo hospital in Mopti (Mali).

## PATIENTS AND METHODS

We realized a descriptive cross-sectional study focusing on the clinical aspects of war injuries admitted to the emergency reception department of the Sominé Dolo hospital in Mopti (Mali) during the period

between January 1, 2020 and October 31, 2022. This hospital represents the largest reference structure in central Mali with per year.

Included in the study were all cases of injuries caused by firearms (BAF) and/or improvised explosive devices following terrorist attacks. Not included in the study were other cases of injury that were not due to terrorist attacks.

The medical files and the hospitalization register were reviewed and data collection was done using a carefully established questionnaire.

The variables studied were:

- Socio-demographic characteristics (age, sex, mechanism, means of evacuation).
- Clinical data (time to admission, number of lesions, type of lesion, pre-hospital care, death).

The data were entered and analyzed using Epi info 7.7 software.

## RESULT

During the study period, 5,404 wounded people of all kinds were admitted to the emergency reception service out of a total of 65,740 patients, i.e. a frequency

of 8.22%, and 1,540 war wounded were admitted, i.e. a frequency of 2.34%.

The age of the patients ranged from 6 months to 80 years with a mean age of 30.61 years. The patients were divided into 1448 men (94%) and 92 women (6%), giving a sex ratio of 15.74.

Patients transported by ambulance to hospital accounted for 62.01%, by plane (18.31%), civil protection (3.38%), other means of transport (16.3%). The average time to admission of our patients before 24 hours was 80% and after 24 hours it was 10%. The injured who received pre-hospital care represented 95.13%.

Each patient had an average of 2.25 lesion locations. In 79% of cases it was a gunshot wound and in 15% of cases it was an injury from improvised explosive devices.

The sites of the lesions were: the upper limbs (50.90%), the lower limbs (45%), the cephalic region (14.60%), the abdomen (11.80%), the thorax (6%), the spine (7.10%). The mortality rate was 0.39% in the emergency room.

## ICONOGRAPHY





## DISCUSSION

To our knowledge, this is the first study carried out on the clinical aspects of war injuries in the emergency reception department of the Sominé Dolo hospital in Mopti.

War injuries represented 2.34% of emergency admissions, leading to an increase in the workload for staff with reduced numbers.

The juvenile layer was mainly represented with an average age of 31 years. This result is similar to those reported by other authors [1, 2].

The sex ratio was 16 men to one woman, this proves that men were the most affected. This result is comparable to that reported by Abdoulhamidou A *et al.*, [3].

The average time to admission for our patients was less than 24 hours in 80% of cases and more than 24 hours in 10% of cases. This delay was different from that reported by Cordier *et al.*, which was less than 24 hours in 36% of cases and greater than 48 hours in 56% of cases [2].

These injured people have the characteristic of being taken care of quickly, far from the concepts of ten minutes of platinum and the golden hour [2].

The patients who had received initial treatment in another healthcare structure were 95.13%, significantly higher than that of Cordier which was 30% [2].

Likewise, the topographical distribution of injuries is influenced by the lengthening of treatment times: limb trauma is more represented than trunk and head injuries. These results are similar to those reported by other authors [1, 2].

In our study, the mortality rate was very low (0.39%) and was certainly influenced by the means of transport used, the relatively short average time to admission and the experience acquired by the hospital in terms of taking in charge of war wounded.

## CONCLUSION

Our series reported a mortality rate among war wounded which was very low, reflecting the experience acquired by the hospital in the care of the wounded.

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