

Mortality Rates at the Bamako Dermatology Hospital from 2015 to 2020

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Abstract

Original Research Article

Introduction: Numerous studies have been conducted on causes of death in dermatology in Africa. However, no study has been carried out on this subject in Mali, which is why this study was initiated. The aim of this study was to describe the causes of death in dermatology in Bamako from 1 January 2015 to 31 December 2020. **Patients and methods:** We conducted a descriptive cross-sectional study of the medical records of patients admitted between 1 January 2015 and 31 December 2020 to the dermatology department of the Bamako Dermatology Hospital [Mali]. The study included all cases of death occurring during hospitalisation where the cause was a dermatological condition. **Results:** A wide range of conditions were identified as responsible for the deaths. Infectious dermatoses accounted for 54.76 per cent and included necrotising fasciitis [25.38 per cent] and erysipelas [2.38 per cent]; neoplastic skin conditions accounted for 2.38 per cent and comprised Kaposi's sarcoma; autoimmune bullous skin conditions accounted for 26.19 per cent and included pemphigus only; severe toxic dermatoses were represented by Lyell's syndrome [9.52 per cent]; and diabetic ulcers [7.14 per cent]. **Conclusion:** Our study revealed that the mortality rate in dermatology was high and that necrotising fasciitis was responsible for more than half of the deaths observed. It is therefore necessary to implement strategies to improve the management of necrotising fasciitis in order to reduce the mortality rate.

Keywords: Mortality, dermatology, Bamako, Mali.

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INTRODUCTION

Mortality is one of the most significant demographic phenomena in public health, and its rate is the primary indicator of a population's state of health.

Communicable diseases, maternal and perinatal conditions, and nutritional problems are collectively responsible for 23 per cent of deaths worldwide, whilst accidents account for 9 per cent [1].

In Mali, the adult mortality rate is slightly higher among men [2.82 deaths per 1,000] than among women [2.66 deaths per 1,000] from all causes combined; declining purchasing power limits access to appropriate healthcare. Skin conditions are the third most common reason for seeking medical advice, and around 10 per cent of consultations take place in non-specialist centres in our country [2].

Skin conditions remain far behind the leading causes of mortality; they rank twelfth according to the International Classification of Diseases [ICD-10] [3].

They are generally benign, but significant changes have been observed with the advent of HIV/AIDS.

Numerous studies have been carried out on causes of death in dermatology in Africa. However, no study has been conducted on this subject in Mali, which is why this study was initiated.

In these circumstances, identifying the causes of mortality will help to advance research and direct resources towards reducing its prevalence.

The aim of this study was to describe the causes of death in dermatology in Bamako from 1 January 2015 to 31 December 2020.

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PATIENTS AND METHODS

We conducted a single-centre, descriptive, cross-sectional study based on the medical records of patients admitted to the dermatology department of the Bamako Dermatology Hospital between 1 January 2015 and 31 December 2020. This hospital is situated in Bamako [Mali] and is the country's largest dermatological referral centre, with over 30,000 consultations per year. The study included all cases of death occurring during hospitalization where the cause was a dermatological condition. The study did not include deaths attributable to non-dermatological conditions, deaths due to skin conditions managed on an outpatient basis, or deaths where the cause remained unclear. Medical records and the hospital admission register were reviewed. Data were collected using a carefully designed questionnaire.

The variables studied were socio-demographic characteristics [age, sex, place of origin, years of hospitalisation, number of days spent in hospital] and clinical data [medical history, the skin condition that caused the death, and complications arising during hospitalisation].

The data were entered into the Epidata 3.1 software and analysed using Stata 14.

RESULTS

From 1 January 2015 to 31 December 2020, out of a total of 520 patients admitted to the dermatology department at the Bamako Dermatology Hospital [Mali], 42 patients died, representing a mortality rate of 8.08 per cent. The mean age of the deceased patients was 49.02 years, with ages ranging from 8 to 99 years. The deceased patients comprised 19 men [45.24 per cent] and 23 women [54.76 per cent], giving a sex ratio of 0.82.

By year of death, we recorded 3 deaths in 2009, 8 deaths in 2010, 14 deaths in 2011, 7 deaths in 2012, 6 deaths in 2013, 2 deaths in 2014, 1 death in 2015 and 1 death in 2016.

The length of hospital stay ranged from 1 to 25 days [extreme values], whilst the average length of stay for all patients was 10.40 days.

There were numerous major conditions recorded as being responsible for the deaths.

Infectious skin conditions accounted for 54.77 per cent and included necrotising fasciitis [52.39 per cent] and erysipelas [2.38 per cent];

Kaposi's sarcomas accounted for 2.38 per cent;
Pemphigus vulgaris accounted for 26.19 per cent;
Lydell's syndrome accounted for 9.52 per cent;
Diabetic ulcers accounted for 7.14 per cent.

The use of non-steroidal anti-inflammatory drugs was identified in 35.71 per cent of patients with necrotising fasciitis, and all had used traditional remedies involving the application of poultices and decoctions.

The drugs implicated or strongly suspected of causing Lyell's syndrome were anti-infective sulphonamides [9.52 per cent].

Among children [aged 0–15 years], we recorded a single death due to Lyell's syndrome. Among subjects aged 16–60 years, the causes of death were necrotising fasciitis [15 cases; 35.71 per cent], erysipelas [1 case; 2.38 per cent], pemphigus [8 cases; 19.05 per cent], Lyell's syndrome [1 case; 2.38 per cent] and diabetic ulcers [2 cases; 4.78 per cent]. The causes of death in patients aged over 60 were necrotising fasciitis [16.66 per cent], Kaposi's sarcoma [2.38 per cent], pemphigus [37.14 per cent], Lyell's syndrome [4.76 per cent] and diabetic ulcers [2.38 per cent].

HIV serology had been carried out in 10 deceased patients; it was positive in 3 deceased patients [7.14 per cent] with necrotising fasciitis, Kaposi's sarcoma and pemphigus.

Associated conditions included septicaemia [2.38 per cent], diabetes [7.14 per cent] and thrombophlebitis [2.38 per cent].

DISCUSSION

The aim of our study was to describe mortality at the Bamako Dermatology Hospital [Mali]. This hospital is currently Mali's largest dermatological referral centre.

This study will provide a better understanding of the causes of mortality in order to improve the day-to-day care of patients admitted to the dermatology ward.

The mortality rate was 8.08 per cent in our series. Similar studies have reported different rates, notably at the Lomé University Hospital [4], the Donka National Hospital in Guinea [5] and 10.06% at the Yalgado Ouédraogo University Hospital in Burkina Faso [6], with rates of 13.5%, 27.7% and 10.06% respectively.

This difference can be explained by the fact that HIV-associated skin conditions are the leading cause of mortality in dermatology in that country. In our country, patients with these conditions are primarily treated in the infectious diseases department rather than in the dermatology department.

Necrotising fasciitis was the leading cause of death in our series. This condition is a medical and surgical emergency that is fatal in 30 per cent of cases [7].

This high incidence may be explained by the presence of numerous risk factors:

Advanced age: the majority of patients were aged 61–75

Most of these patients are seen in non-specialist centres where treatment is often inappropriate, particularly the administration of NSAIDs, whose role in exacerbating the condition has already been recognised [8, 9].

The use of traditional remedies, particularly poultices and decoctions, which are inappropriate treatments that promote tissue necrosis.

Pemphigus was the second leading cause of death in our study, accounting for 26.19 per cent. This high rate may be primarily due to the side effects of oral corticosteroids [10], which are the treatment of choice in Mali for pemphigus.

Bullous drug eruptions, notably Lyell's syndrome, accounted for 9.52 per cent of deaths in our study; this is consistent with a study carried out in Lomé, where the mortality rate in dermatology was 12 per cent [4]. Antibacterial sulphonamides were the main cause of toxic skin reactions. This may be explained by the fact that these medicines are cheaper and readily available in our country.

The number of deaths due to Kaposi's sarcoma was very low in our study. This may be explained by the fact that this condition is primarily treated in oncology departments.

As regards the factors associated with the causes of death, these were primarily diabetes, HIV-related immunosuppression, thrombophlebitis and septicaemia, which complicated or even caused the onset of the conditions leading to death.

Our study was based solely on patients who died in the dermatology department of the Bamako Dermatology Hospital, which is not representative of the population of Mali. Due to a lack of sufficient resources, diagnoses were based on clinical presentation in the majority of cases, which may have led to a selection bias. Despite these limitations, any methodological issues encountered do not call into question the validity of the results.

Conclusion: Our study revealed that the mortality rate in dermatology was high and that necrotising fasciitis accounted for more than half of the deaths observed. It is therefore necessary to implement strategies to improve the management of necrotising fasciitis in order to reduce the mortality rate.

REFERENCES

1. WHO. Child abuse [Internet]. WHO. [Cited 15 Sept 2016]. Available at: <http://www.who.int/mediacentre/factsheets/fs150/fr/>
2. EDSMV: "CPS/SSDSPF, INSTAT, INFO-STAT. Mali Demographic and Health Survey [EDSM V] 2012–2013 [FR286]. p. 577
3. Mahé A, Keïta S, Faye O *et al.*, Manual on the management of common skin diseases in Mali, p. 25
4. Saka B, Kombate' K, Mouhari-Toure A, Akakpo S, Gnassingbe' W, Tchangaï-Walla K, Pitche' P. Mortality in dermatology in Lomé [Togo]: the burden of HIV infection. *Med Sante Trop.* 2015; 25: 446–448.
5. Camara A, Diaby B, Sako F B, Camara A D, Baldé H, Keita M, Doumbouya A, Kaba H, Tounkara TM, Soummah M M, Diané BF, Cissé M. Deaths whilst on antiretroviral therapy in the dermatology and venereology department of Donka National Hospital, Guinea. *Mali Médical.* 2012; 27: 24–28
6. Ouedraogo MSS, Korsaga-Somé NN, Tapsoba GP, Ouedraogo NA, Yara R, Barro-Traoré F, *et al.*, Mortality among patients admitted to a dermatology and venereology department in sub-Saharan Africa. *Annales de Dermatologie et de Vénéréologie.* December 2015;142[12, Supplement]:S585.
7. Berbis P. Skin necrosis. EMC [Elsevier Masson SAS, Paris], *Dermatology.* 2006;98-565-A-10,
8. Lazzarini L, Conti E, Tositti G, De Lalla F. Erysipelas and cellulitis: Clinical and microbiological spectrum in an Italian tertiary care hospital. *J Infect.* 2005; 51[5]: 383–9.
9. Jaussaud R, Kaeppler E, Strady C *et al.*, Is there a role for NSAIDs/corticosteroids in the management of erysipelas? *Ann Dermatol Venereol.* 2001; 128: 348–351.
10. Musette P, Benichou J, Noblesse I, *et al.*, Determinants of severity in superficial cellulitis [erysipelas] of the leg: a retrospective study. *Eur J Intern Med.* 2004; 15[7]: 446–450.