

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.elsevier.com/locate/etap

Review or Mini-review

Clinical features and treatment experience: A review of 292 Chinese cobra snakebites



Wei Wang^a, Quan-Fang Chen^{b,*}, Rui-Xing Yin^c, Ji-Jin Zhu^a, Qi-Bin Li^a,
Hai-Hua Chang^a, Yan-Bi Wu^b, Edward Michelson^{d,*}

^a Department of Emergency, the First Affiliated Hospital, Guangxi Medical University, 6 Shuangyong Road, Nanning 530021, Guangxi, China

^b Department of Respiratory, the First Affiliated Hospital, Guangxi Medical University, 6 Shuangyong Road, Nanning 530021, Guangxi, China

^c Department of Cardiology, the First Affiliated Hospital, Guangxi Medical University, 6 Shuangyong Road, Nanning 530021, Guangxi, China

^d Department of Emergency, University Hospitals Case Medical Center, Case Western Reserve University, 11100 Euclid Avenue, Cleveland, 44106 OH, USA

ARTICLE INFO

Article history:

Received 31 October 2013

Received in revised form

20 December 2013

Accepted 30 December 2013

Available online 29 January 2014

Keywords:

Chinese cobra

Snakebite

Clinical features

Treatment experience

ABSTRACT

Although Chinese cobra snakebite is the most common type of snake venenation in China, it still lacks a comprehensive and systematic description. Hence, we aimed to study Chinese cobra bite cases with particular attention to demography, epidemiology and clinical profile. In this study, a total of 292 cases of Chinese cobra snakebite, presenting between January 1, 2008 and December 31, 2012, were retrospectively reviewed. To investigate the effect of treatment at different presentation times (time from snakebite to admission), the patients were divided into two groups: group A included 133 cases that presented <12 h after the bite; group B included 159 cases that presented ≥ 12 h after the bite. To assess the correlation between application of a tourniquet and skin grafting, the cases were re-divided into two groups according to whether or not a tourniquet was used after the snakebite: tourniquet group ($n=220$) and non-tourniquet group ($n=72$). The results showed that Chinese cobra snakebites were most commonly seen during the summer, in the upper limbs, and in males, young adults, and snake-hunters. Group A experienced milder intoxication than group B ($P<0.001$). The rate of skin grafting was significantly higher in the tourniquet group (20.0%, compared with 9.7% in the non-tourniquet group, $P<0.05$). The results of this study indicate that anti-cobra venom and swift admission (within 12 h of the snakebite) are recommended for Chinese cobra snakebite. Tourniquet use is not recommended.

© 2014 Elsevier B.V. All rights reserved.

* Corresponding authors at: Department of Respiratory, The First Affiliated Hospital, Guangxi Medical University, 6 Shuangyong Road, 530021 Nanning, Guangxi, China. Tel.: +86 13768510595.

E-mail addresses: weiwangx@163.com (W. Wang), chenquanfang555@163.com (Q.-F. Chen), yinruixing@163.com (R.-X. Yin), zhujijin63@vip.sina.com (J.-J. Zhu), 992642390@qq.com (Q.-B. Li), kanggang130@163.com (H.-H. Chang), 305722025@qq.com (Y.-B. Wu), edward.michelson@uhhospitals.org (E. Michelson).

1382-6689/\$ – see front matter © 2014 Elsevier B.V. All rights reserved.

<http://dx.doi.org/10.1016/j.etap.2013.12.018>

Contents

Introduction	649
Materials and methods	649
Study population	649
Methods	649
Grouping	650
Records	650
Statistical analysis	650
Results	650
Baseline clinical characteristics	650
Comparison of general and clinical characteristics of group A and group B	652
Comparison of general and clinical characteristics between the tourniquet and non-tourniquet groups	652
Discussion	652
Etiology and epidemiology	652
Toxins and clinical manifestation	652
Relationship between presentation time and condition	653
Tourniquet and skin-grafting	653
Treatment and prognosis	654
Conclusions	654
Conflict of interest statement	654
Acknowledgments	654
Appendix A. Supplementary data	654
References	654

Introduction

Of the more than 3000 known species of snakes, around 300 are poisonous. The Chinese cobra (*Naja naja atra*) belongs to the elapid family (*Elapidae*) with the characteristic “glasses” sign (Fig. 1). It is one of China’s top 10 poisonous snakes, and is mainly distributed south of the Yangtze River (Wüster, 1996). Clinical features of Chinese cobra bites differ somewhat from those of other kinds of cobra in India, Thailand, and southern Africa (Saravu et al., 2012a; Warrell, 2013; Akani et al., 2013). Unfortunately, there is still no comprehensive description of Chinese cobra snakebite. The purpose of this study was to analyze the clinical features of Chinese cobra snakebite and



The characteristic “glasses” sign of Chinese cobra

Fig. 1 – Chinese cobra.

summarize the treatment experiences of a broad sample of Chinese cobra snakebite patients.

Materials and methods

Study population

A total of 292 cases of Chinese cobra snakebite were identified from a retrospective chart review covering January 1, 2008 to December 31, 2012. All patients presented to the First Affiliated Hospital of Guangxi Medical University in Nanning, China. The subjects consisted of 257 (88.0%) males and 35 (12.0%) females, ranging in age from 15 to 72 years, with a mean age of 39.7 ± 11.5 years. This retrospective study was approved by the Ethics Committee of Guangxi medical university. Permission was similarly obtained from the Hospital Director to allow access to the information in the patients’ case notes, strictly for the purpose of this research.

Methods

Criteria for inclusion in the study group, in accordance with international guidelines (Ministry of Health Malaysia (MOH), 2008; WHO/SEARO, 1999), included: (1) history of Chinese cobra bite; (2) confirmation that the snake was a Chinese cobra, either by catching the snake or identifying it among medical pictures of China’s top 10 poisonous snakes; (3) clinical manifestation of local tissue swelling and necrosis. Exclusion criteria were: (1) another type of snakebite; (2) failure of the case to complete routine treatment; (3) history of organ dysfunction. All patients accepted the routine treatments, which included: (1) intravenous infusion of 50^u/kg

Download English Version:

<https://daneshyari.com/en/article/2582984>

Download Persian Version:

<https://daneshyari.com/article/2582984>

[Daneshyari.com](https://daneshyari.com)