

Anthrax outbreak investigation in Kazungula District of Southern Province, Zambia, November 2023

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Introduction

Anthrax is a serious infectious disease caused by the bacterium *Bacillus anthracis* and can affect humans and animals, posing a threat to public health due to its potential for outbreaks. On September 20, 2023, the Kazungula district health office received two notifications of possible human anthrax cases about 190 kilometers from Kazungula Town. The aim of the investigation was to verify and describe the distribution of Anthrax cases by time, place and person in Kazungula district of Southern Province.

Methods

A cross section descriptive study was used in order to give a snapshot of the association between exposure and outcome. Study participants included all cases that met the World Health Organization standard case definition for anthrax as adopted by the Ministry of Health were included in the investigation. Data collection included review of district and facility records and collection of samples for laboratory confirmation and later shipped to Zambia National Public Health Reference Laboratory.

Results

A total of 5(63%) Females and 3(37%) Males suspected cases of Anthrax from six villages were investigated in Kazungula District. Villages included Sianamunyama (1 male and 2 females), Nyambe (1 male), Tom muyambango (1 female), Namapande (1 female) Mwananalisa (1 male), and Chilale (1 female). Fifty percent of participants were aged 15 to 44 years while 25 percent were below 14 years and 25 percent were above 45 years. All patients had symptoms of a cutaneous form of Anthrax and a Sample from one patient was collected for further analysis however the results were negative. A total of 88 percent of participants reported having contact with Beef from suspected animals that died from Anthrax. Evidence of bovine carcasses that died from unknown causes were also found being prepared by the local community further exposing them to the spread of anthrax

Conclusion

The investigation established that there was evidence of anthrax cases in the eight villages of the district despite the results coming out negative. Kazungula district remains at high risk of the outbreak of anthrax due to high interaction between



wild and domestic animals hence there is a need to strengthen the one health approach to combat the spread of the disease.