



Treatment of Tetanus in Goats and Sheep

KEYWORDS

Goats, sheep, tetanus, alcohol

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ABSTRACT Four goats and two sheep presented with symptoms suggestive of tetanus were clinically confirmed the same. All were treated orally with five to ten ml (milli liter) of locally distilled alcohol or 20-50ml of branded alcohol twice daily for 20 days. Animals were given forceful liquid feeding and stabled. Gradual recovery noticed from eighth day and was found to be 99% from 25 days.

INTRODUCTION

Tetanus is a highly fatal, infectious disease of all species of domestic animals including man, caused by *Clostridium tetani* with very long convalescence in survivors (Radostits, Gay, Hinchcliff & Constable, 2006). Prospectus of treatment is not good and the costs are high. (Komarek, 1986).

A field trial was conducted in tetanus affected sheep and goat which were successfully treated with alcohol.

MATERIAL AND METHOD

Four goats and two sheep presented with symptoms of generalized muscular rigidity, locked jaw, wooden horse appearance and protrusion of third eyelid were clinically confirmed as tetanus. Abscess wound found in five animals. These animals were given five to ten ml (milli liter) of locally distilled alcohol (80-90%) or 20-50ml of branded alcohol (35-40%) twice daily for 20 days. No other treatments were given. Forceful liquid feeding and stabling the animals advised.

RESULT

From eighth day onwards, stiffness gradually reduced and the animals started to walk and feed. Complete recovery noticed from 25 days.

DISCUSSION

A glass of beer or wine or mixed drink or a shot of spirit contains 14gm (gram) of alcohol or about 0.3mol ethanol (Goodman & Gilman, 2006). In vitro, Daifas, Smith, Blanchfield, Cadieux, Saunders and Austin (2003), and Herrero and Gomez (1980) observed the growth and neurotoxin production of *Clostridium botulinum* (sporostatic and/or bacteriostatic) were completely inhibited by six percent ethanol. Inhibitory effect of ethanol on *Cl.botulinum* in vitro was also observed by Herrero et al., 1980. Because tetanus and botulinum toxin resembles each other in their amino acid sequence (Ananthanarayan & Paniker, 2009), it is hypothesized that ethanol's effect may be same on Tetanospasmin in vivo. The alcohol also acts as muscle relaxant. Tetanospasmin binds to peripheral motor neuron, terminals, enters axons and spinal cord and brain, similarly the alcohol does and may neutralize intra-neurally translocated Tetanospasmin.

CONCLUSION

Tetanus affected goats and sheep were treated with locally distilled (or) branded alcohol and found 99% recovered from 25 days of treatment onward.

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