

Treatment of Corneal Opacity in Caprines with Autohaemotherapy

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Summary

Autohaemotherapy in simple terms means injecting patients own blood parenterally. In the present study this method was found to be effective in treatment of rapidly occurring corneal opacity due to unknown causes in caprines. The technique followed throughout this work was intramuscular injection of freshly drawn whole blood. Opacity of cornea got cleared completely. This may be due to the immune-stimulatory effect produced due to autohaemotherapy. This method is preferable as it is simple, safe and economical compared to the other conventional approaches. This might be an alternative method in the field.

Key words: Autohaemotherapy, Corneal opacity, Caprines

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Introduction

Autohaemotherapy in simple terms means injecting patient's own blood parenterally. This method is preferable as it is simple and economical compared to the other conventional approaches. The action or effectiveness of this may be due to its immune enhancing effects (1). This method was initially practiced by Ravaut, he withdrawn 10-20 c.c. of blood and reinjected the fresh whole blood intramuscularly before clotting (2). Injection of whole blood intramuscularly, enhances the proteolytic and lipolytic activity of the blood serum and intravenous administration of autoserum could produce only feeble effects. Earlier workers proved that administration of auto blood or auto serum could markedly reduce the effects of external irritants on dermis (2). Enhanced production of both humoral and cell mediated immunity has been reported for autohaemotherapy (3).

Bovine papillomas were found to regress in short time when autohaemotherapy was employed along with autogenous vaccine (4). This method is more recognizable as a method of stimulating immune system in a physiological fashion and is used in a different way to treat HIV infections at their early stage in combination with ozone (5). This has been effectively used in treating juvenile asthma due to allergic response (6). Skin infections had shown tremendous response to autohaemotherapy especially to psoriasis. There are no reports of corneal affections treated with autohaemotherapy.

Case presentation

The study was performed in four goats presented with corneal opacity at the age of 2-5 years. The corneal opacity encountered in all the cases was unilateral and was of recent origin, less than week duration. Corneal trauma was assumed to be the cause in all the cases. It is widely accepted that the corneal insults initiate the disease. Cornea was completely opaque permitting a little vision with respect to the affected eye. Other parameters like body temperature, pulse and respiration were normal and there were no signs of lacrimation or ocular discharge. Pupillary reflex in response to light was found to be very feeble or even absent in all the cases. Irrespective of this opacity the animal was otherwise normal. None of the cases had a history of earlier treatment for the respective symptom. 10ml of blood was withdrawn from the jugular vein of the animal and the fresh whole blood was administered intramuscularly into the triangular area of neck, in front of shoulder.

Result and Discussion

The animal was found to be normal through out the period of study. Opacity was observed to be completely cured in 1.5 to 2 weeks time in all the four goats. Presence of pupillary reflex was observed in all the cases after treatment. No further treatment was performed during the period. This method was proved to be effective in treatment of corneal opacity of unknown origin in caprines. Even though this is an old concept, this method can be adopted as this doesn't have any side effects and is feasible both on an in-and out-patient basis (3). This might be an alternative method in the field because of its simple and economic nature.

The aim of the treatment was to provide relief from pain, shorten the duration of disease, and prevents the progression to loss of vision and to restore a clear vision. The benefits of this treatment include avoidance of use of any other drugs and associated cause and moreover the given therapy stimulates the host immune system. Recurrence has not been reported in any of the cases.

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