Hemorrhagic Diathesis or Hemorrhagic Disease

The disease occurs primarily in racing dromedaries of which 80% are between 2 and 4 years old or even younger. The disease is the most serious ailment in racing camels and has been reported from all countries of the Arabian Peninsula where camel racing is performed.

It is believed that not only the extreme climate aggravates outbreaks of this disease, but change of diet from a more high fibre to a high carbohydrate and protein diet. In camels large number of Gram-negative bacteria constituting the normal flora of the gastrointestinal tract provides a potential source of endotoxin. In Acute acidosis very large quantity Gram negative bacteria are destroyed which often clinically manifest ed by endotoxemia ,endotoxin shock or hemorrhagic Disease

Etiology

Endotoxins are lipopolysaccharides, which are found in the outer cell wall of Gram-negative bacteria and are released during periods of rapid death of organisms.

Endotoxins are extremely toxic and may be lethal at a concentration of 10-9g/mL. They are chemically very stable and boiling does not destroy them.Small amounts of endotoxins are regularly produced in the gastrointestinal tract but they are absorbed through the intestinal mucosa into the circulation and are detoxified in the liver. However, if hepatic efficiency is reduced or the amount of toxins is too large, toxemia is produced, with severe consequences.Which produces Widespread vascular endothelial damage due to the which endotoxin activates the clotting cascade and causes disseminated intravascular coagulation(DIC).

Clinical Symptoms

The initial stage (24-48 h) of the disease is characterised by a dramatic decrease in the total number of leukocytes(WBC),fever as high as 41”C, inappetence, depression and dullness. 3 to 4 days after the onset of the first clinical signs, the WBC counts increases .
Some animals develop a cough and swelling of the throat accompanied by a marked uni-or bilateral enlargement of the lymph nodes. Additionally complete atonia of compartment 1, abdominal pain and regurgitation have been observed. Rectal examination of affected dromedaries reveals normally formed balls of stool that are covered in fresh or tar-like blood.

Affected camel may die between 3rd to 7th day. 2 or 3 days before death, the animals become recumbent. Some dromedaries develop central nervous system disturbances, lacrimation and hyper-salivation. The development of nervous signs is a feature of terminal cases.

Treatment and Control

Therapeutic success of endotoxemia of camels depends primarily on early diagnosis and treatment. The therapy for endotoxemia should include these main treatments:

1. Binding of endotoxins and their removal from the system*
2. Administration of antacids to reverse the lactic acidosis
3. Fluid therapy
4. Control of inflammatory response
5. Prevention of the development of gastric ulcers
6. Supportive therapy to increase the detoxifying capacity of the liver
7. Broad spectrum antimicrobial

***Toxiclean suspension @ 1-2 ml / kg body wt.(min 600 ml) 2-3 time a day for min. 3 days (with lukewarm water) as supportive treatment**

***Toxiclean suspension @ 0.5-1 ml / kg body wt.(min 300 ml) once in month (with lukewarm water) as prevention**