POST CAPTURE MYOPATHY SYNDROME IN RED DEER (*CERVUS ELAPHUS*)

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ABSTRACT

The capturing of red deer from the wild to stock deer farms has brought with it problems of stress. Large numbers of deer have died due to poor catching techniques and inappropriate drugs. Efforts to minimize these deaths require an understanding of the physiology, pathology and epidemiology of the changes occurring within the animal and during capture.

To assist in the correct interpretation of the data collected, normal haematological and biochemical parameters had to be established. This was carried out on deer of different age groups and sex from deer farms. In addition the effects of the commonly used capture drugs on the biochemical parameters were established.

Blood and serum were obtained from captured animals at the site of capture and where possible further samples were obtained from these animals at set intervals.

The biochemical parameters found to vary from the normal in captured animals were pH, Pco_2, lactate, SGOT, (Aspartate aminotransferase), blood urea nitrogen, and potassium. The changes in these parameters clearly indicated a profound acute or delayed lactic acidosis and severe muscle damage both skeletal and cardiac. The captured animals were divided into those which survived (captured) and those which died (myopathic). It was found that the changes in the 'myopathic' group were more profound than in the 'captured' group.

The rising blood urea nitrogen levels and damaged cardiac muscle may account for the delayed deaths from uraemia due to a severe nephrosis and cardiac failure.

The clinical effects on captured animals were recorded and those that died in both the acute and delayed form were necropsied. The gross and histological lesions were described. The most obvious clinical changes in addition to temperature, respiration and heart rates were lameness, recumbency and the wry neck. Histologically, the muscle changes resembled those found in white muscle disease of domestic ruminants in this country.

The epidemiological studies suggested certain simple measures could be taken to reduce the effects of the respiratory depression resulting from the drugs and transportation, to reduce the stress of capture and to allow acclimatisation to the new conditions. These were (1) that less or no Nalorphine be used, (2) that the animals were caught early in the year, (3) that young smaller females were preferred to males (4) that a loose bag totally enclosing the animals was used, (5) that darkened conditions helped keep the animals quiet and (6) all captured animals should be retained in a dark house for two or more days before release into the paddocks.

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