TREATMENT OF THE NEWBORN CALF

P. Larvor

Laboratoire des Maladies Métaboliques, Centre de Recherches Zootechniques et Vétérinaires de Théix, 63110 Beaumont, France.

ABSTRACT

The scientific evidence for the use of various treatments (etiologic or symptomatic) in newborn calf diarrhoea is reviewed. From these considerations it is possible to summarise the main tendencies of scour therapy. Rehydration is the most important point of the treatment; various ancillary treatments are discussed and a therapeutic scheme is advocated.
1. ETIOLOGICAL TREATMENT

Three types of theory concerning the etiology of scours in the newborn calf are current: the theory of infection with its bacteriological and viral interpretations, the theory of immunological defect, and the theory of congenital deficiency. They can be combined, which means that everybody has his own explanation. My personal view is that, starting from deficient nutrition of the dam and poor management of the newborn calf, there is a defect in the transmission of immunity which allows various more-or-less pathogenic germs to colonise the digestive tract and eventually to enter the circulation. I must admit that there is no clear-cut demonstration of this view, and in this field as in religious matters, all opinions must be respected.

1.1. Effect of antibacterial agents

It is obvious that successful treatment of diarrhoea with anti-infectious agents would offer some evidence for the view that bacteria are involved as causative organisms. Many trials have been carried out in order to demonstrate an activity of antibiotics or chemotherapeutic agents, with varying results. In animals submitted to a complete treatment (including intensive rehydration), the antibiotics or chemotherapeutic agents are generally ineffective (Fisher and de la Fuente, 1971; Radostits et al., 1975) or of doubtful value (Dalton et al., 1960; Fayet, 1975). However, in less controlled conditions, many reports have been published of good results with such substances (see in Roy, 1970; Fey, 1972; Dinse, 1974; Bartos et al., 1974, 1975). These discrepancies might be explained by various reasons:

1.1.1. The acquired resistance of bacteria to the antibacterial agents can confuse the picture. For some authors, the efficacy of the classical antibiotics in calf diarrhoea decreases from year to year (Roy, 1970; Fey, 1972). When faecal swab cultures are tested for sensitivity to antibiotics, resistance is often observed for most