COLOSTRAL IMMUNOGLOBULIN UPTAKE AND ITS CESSATION BY THE EPITHELIUM OF THE SMALL INTESTINE OF NEONATAL PIGLETS

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The small intestine of naturally reared piglets ranging from 0 to 72 hours of age were examined by the immunofluorescent technique and electron microscopy to study the uptake and cessation of colostral immunoglobulin by the small intestinal epithelium.

Colostral immunoglobulins contained in the epithelium were observed from one hour until 2 hours after birth in the duodenum, but only from half an hour until 24 hours in the jejunum, and from 1 hour until 48 hours in the ileum.

Electron microscopically, the presence of cytoplasmic invaginations and vacuoles in the epithelial cell disappeared in the duodenum after 2 hours, in the jejunum after 48 hours, and in the ileum at 72 hours.

In conclusion, it was clarified that the cessation of the uptake of colostral immunoglobulins occurs from the proximal to the distal part of the small intestine, and that it occurs in the ileum at about 3 days after birth.