Abstract

According to the classification of placental types among animals, the transfer of iron through the placenta can occur via: absorption connected to transferrin through the outer surface of the trophoblast in direct contact with circulating maternal blood; absorption of the erythrocytes by the chorionic epithelium in direct contact with accumulation of blood extravasated from haemotophagous areas; absorption by the chorionic epithelium in direct contact with iron enriched secretions from the endometrial glands and absorption by extravasations of the blood in the maternal-fetal surface and the subsequent phagocytosis of the erythrocytes by trophoblast cells described in bovine, small ruminants, canine and feline. The function of erythrophagocytosis observed after the extravasation of blood in the maternal-fetal interface is undefined in several species. Possibly, the iron is transferred to the fetus through the trophoblastic erythrophagocytosis in the hemophagous area of the placenta and also in the endometrial glands. In this literature survey, new methods of studies regarding placental transfer involving iron and other nutrients necessary for survival and maintenance of embryonic fetus to birth are proposed.

Keywords

Endocitosis, iron, phagocytosis, placental hematoma.