

233. Chitotriosidase activity in goat and kids blood and colostrum

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Chitotriosidase (ChT) activity has not been investigated in ruminants, and therefore we studied this activity in blood and colostrum of 15 pregnant goats and 30 goat kids. Blood samples were taken from pregnant goats at 3, 2 and 1 d prepartum, at partum, and at 1, 2, 3 and 4 d postpartum. Colostrum samples were obtained by machine milking at partum, and 1, 2, 3, and 4 d postpartum. Goat kid blood was collected at birth and every 7 d thereafter until goats kids were 56 d old. ChT activity ranged from 2464 to 3568 nmol/mL/h in goat blood serum, and no statistical differences were detected through time. However, activity tended to decrease from 3 d prepartum to 2 d postpartum. Colostrum ChT activity was 3834 nmol/mL/h and 421 nmol/mL/h on the d of delivery and 4 d postpartum, respectively. Colostrum ChT activity was significantly higher at partum than at any other time. ChT activity in colostrum was significantly greater at 1 d postpartum than at 2, 3 and 4 d postpartum. ChT activity did not differ in colostrum collected on d 2, 3, and 4 postpartum. ChT activity in goat kid blood serum ranged from 2521 to 9987 nmol/mL/h at birth and 49 d of life, respectively. ChT activity in the blood serum increased with age: at birth, activity was significantly less than at 28, 35, 42, 49 and 56 d postpartum. The maximum ChT activity in blood serum was observed at 49 d postpartum.