

A prognostic indicator of post partum viability of kids born to Escherichia coli-vaccinated or unvaccinated does.

Munyua, S.J.M.; Kariokia, D. I.; Wabacha, J. K.; Thaiya, A. G.; Njenga, J.M.; Gathuma, J. M.; Mitaru, B.

URI: <http://erepository.uonbi.ac.ke:8080/xmlui/handle/123456789/10624>

Date: 2000

Abstract

This study was undertaken to determine some blood and other physiological parameters with potential for use as prognostic indicators of viability of newborn goat kids. Of the 143 kids born during the on-farm study, 97 were crosses of Galla×Small East African (SEA) and 46 were pure SEA. The SEA×Galla kids were 46 single males, with a mean body weight at birth of 2.77 ± 0.22 kg, 43 females with a mean body weight at birth of 2.36 ± 0.76 kg and 5 and 3 sets of female and male twins (mean body weight at birth of 1.8 ± 0.19 kg and 2.05 ± 0.07 kg for the female and male kids, respectively). The SEA kids comprised 36 single male and female kids (mean body weight at birth of 2.48 ± 0.04 kg and 10 sets of twins (both male and female) (mean body weight at birth of 1.50 ± 0.04 kg). Pre-suckling sera obtained on-station from kids born of does vaccinated against Escherichia coli (n = 8) and unvaccinated does (n = 7) had a total protein content of <40.0 g/ and no detectable levels of IgG and Aor E. coli antibodies. Sera obtained 12 hours post partum from kids that survived in both groups contained about 19–22 g of Ig g/ , 50–80 g total protein/ , blood glucose of >5mmol/ and had an E. coli antibody titre of between 1/160 and 1/640. On the other hand, kids that died within 48 hours of birth (parturient deaths) and had been classified in categories 3 and 4 righting reaction had low (<40 g/) total protein, low white blood cell count (4000/m) and low blood glucose concentration (<4.9 mmol/). It is concluded that kids with delayed righting reaction (>45 minutes), low rectal temperature (<36 °C), low birth weights (<1.5 kg for singles and <1.0 kg for twins), low white blood cells (<4000/ m), low (<2 mmol/) blood glucose levels, low total protein (<40.0 g/), low (<1:160) E. coli antibody titre and IgG (3350 mg/) in sera obtained 12 hours after birth have a poor prognosis for survival.