

breath and high plasma ethanol levels (Table II). Although no clear explanation is available, a similar vulnerability was also observed in two week old calves in a previous study (2).

Discussion

A detailed investigation of the yeast related syndrome was not undertaken since it was only an incidental problem and not part of the objectives of the nutrition-metabolism study. Further investigations are therefore needed to fully understand this problem in neonatal animals. It is apparent that the yeast related ethanol intoxication syndrome may arise when some aspect of animal husbandry involves the occurrence of glucose in milk replacers. Lactose, present in milk or in milk replacers does not support any fermentation by *T. glabrata* (6). The possibility of alcoholic fermentation of glucose, in the gastrointestinal tract of neonatal animals, may assume importance in view of the recent developments in milk replacer formulation (16, 17), which relate to the feasibility of using starch hydrolysates as replacement for dietary fat and lactose. Based on our observations it can be stated that, when using glucose or hydrolysed starches in milk replacers,

it is advisable to consider the use of effective levels of a yeast inhibitor and to give special attention to the maintenance of cleanliness.

References

1. WIJAYASINGHE MS. Lipogenesis in calves. Ph.D. Thesis, University of California, Davis, California, 1981.
2. ABE RK, MORRILL JL, BASSETTE R, OEHME FW. Ethanol intoxication in calves fed certain milk replacers. *J Dairy Sci* 1971; 54:252-257.
3. BECKER DE, NESHEIM MC, TERRILL SW, JENSEN AH. Factors in the formulation of a semi-synthetic diet for amino acid studies with the pig. *J Anim Sci* 1954; 13:975.
4. BELL JM, WILLIAMS HH, LOOSLI JK, MAYNARD LA. The effect of methionine supplementation of a soybean oil meal purified ration for growing pigs. *J Nutr* 1950; 40:551-561.
5. CUNNINGHAM HM, BRISSON GJ. Note on alcoholic fermentation in the stomachs of lambs fed high glucose diets. *Can J Agric Sci* 1955; 35:511-512.
6. WHITE RW, LINDSAY DB, ASH RW. Ethanol production from glucose by *Torulopsis glabrata* occurring naturally in stomachs of newborn animals. *J Appl Bacteriol* 1972; 35:631-646.
7. GOODMAN LS, GILMAN A. The pharmacological basis of therapeutics. 5th ed. New York: The McMillan Co., 1965: 1235-1236.
8. HAZEN EL, BROWN R. Nystatin. *Ann N Y Acad Sci* 1950; 89:258-266.
9. NATIONAL RESEARCH COUNCIL. Subcommittee on Dairy Cattle Nutrition. Nutritional

Requirements of Dairy Cattle. 5th ed. Washington D.C.: National Academy of Sciences, 1978.

10. ROY JHB. The calf. 4th ed. London, Boston: Butterworths, 1980.
11. BLANKE RV. Toxicology. In: Tietz NW, ed. Fundamentals of clinical chemistry. Philadelphia: W.B. Saunders Co., 1970: 833-889.
12. STARMER WT, PHAFF HJ, MIRANDA M, MILLER MW. *Pichia cactophila*, a new species of yeast found in decaying tissue of cacti. *Int J Systematic Bacteriol* 1978; 28:318-325.
13. VANDERWALT JP. Criteria and methods used in classification. In: Lodder J, ed. The yeasts — a taxonomic study. Amsterdam: North Holland Publishing Co, 1974: 34-113.
14. UDEN VAN N. Factors of host-yeast relationship. *Recent Prog Microbiol* 1963; 8:635-643.
15. BASSETT JM. Dietary and gastro-intestinal control of hormones regulating carbohydrate metabolism in ruminants. In: McDonald IW, Warner ACI, eds. Digestion and metabolism in the ruminant. Armidale, Australia: New England Publishing Unit, 1975; 383-398.
16. THIVEND P, TOULLEC R, GUILLOTEAU P. Digestive adaptation in the preruminant. In: Ruckebusch Y, Thivend P, eds. Digestive physiology and metabolism in ruminants. Lancaster, England: MTP Press Ltd., 1980; 561-585.
17. SOLIMAN HS, ORSKOVER, ATKINSON T, SMART RI. Utilization of partially hydrolysed starch in milk replacers by the newborn lamb. *J Agric Sci (Cambridge)* 1979; 93:37-46.

ERRATUM

Can Vet J 1984; 25: 67-71

Clostridial Cellulitis in the Horse: A Report of Five Cases

Figures 2 and 3 were transposed. The picture with the arrows is actually Figure 2.

We regret any inconvenience this may have caused.