TWINNING AND ITS MANAGEMENT IN MARES

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ABSTRACT

Present report records a case of twin pregnancy in mare and its successful reduction to a singleton.

Key words: Mare, Twinning, Twin reduction

INTRODUCTION

In uniparous species such as cattle and horses, multiple births are much less frequent, however, several workers have made studies on the occurrence of multiple births in cattle but little work has been done with horses.

Mare is classified as monotocous, which means the uterus of mare is unable to adequately support two pregnancies. Hence twin pregnancies rarely survive to term, most commonly resulting in abortion in mid to late pregnancy (9-10months). They are in fact the most common cause of non-infectious abortion, accounting for 20-30% of all occurrences. Only 9% of twin pregnancies survive to term: 64.5% of which result in 2 dead foals, 21% in one live foal and 14.5% in 2 live foals (Pascoe. & Stover, 1989).

There are several other methods to reduce twins before and during the fetal stage (day 40) and endometrial cup formation (day 36) (Alien and Moor, 1972). Between days 21 and 49 of gestation, sudden temporary reduction of food intake by mares for 2-4 wk has a 60% chance of reduction. Management of equine twin pregnancies after 40 d gestation is further complicated by the formation of endometrial cups (Pascoe, 1983).

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CASE HISTORY AND OBSERVATIONS

A mare with Twin Pregnancy (Fig.I) was diagnosed through Ultrasonography at Equine Production Campus, Bikaner. A real- time B mode linear array 5 MHz transducer (KONTRON MEDICAL, Dynamic Imaging, France) was used in this study to detect the twin pregnancy in the mare. The twins observed were present in the same horn and they were superimposed on each other. Both the embryos are aged about 21 days of gestation.

TREATMENT AND DISCUSSION

Natural twin reduction does not occur before day 11, and it is negligible between days 11 and 15 (Ginther, 1989, Pascoe *et al,* 1987, Ginther & Bergfelt, 1988). Therefore, twin pregnancies that are detected during the mobility phase days 9-15 are best managed by manually crushing one embryonic vesicle (Roberts, 1982). Early transrectal ultrasonographic detection of twins and manual crushing of one conceptus is the method of choice for managing equine twins before Day 24 of gestation. If the vesicles can be separated at this time, 90% of unilateral twins can be manually crushed successfully between days 17 and 20. After diagnosing the twin pregnancy an attempt was made to manually crush the smaller vesicle with the help of the ultrasound transducer. As per the literature, it is recommended to crush the smaller vesicle or the vesicle that needs the least amount of uterine manipulation. Among the two vesicles the smaller vesicle was milked in to the tip of

the uterine horn and it was crushed later on between the thumb and forefinger. After this process of reduction again the mare was scanned for pregnancy. A single embryo (Fig.2) among the twins was present and the manual crushing has become successful in reduction of twins to singleton. Later the mare carried the single embryo till the term and it foaled a single foal. The advent of modern techniques such as ultrasonic scanning allows us to effectively manage mares with twin conceptuses. Periodic ultrasonographic examinations can be a valuable aid in diagnosis and management of twins. From all of the preceding discussion it should be obvious that in our opinion the best method of handling twins is early identification and manual destruction of one (day 11 to 16).

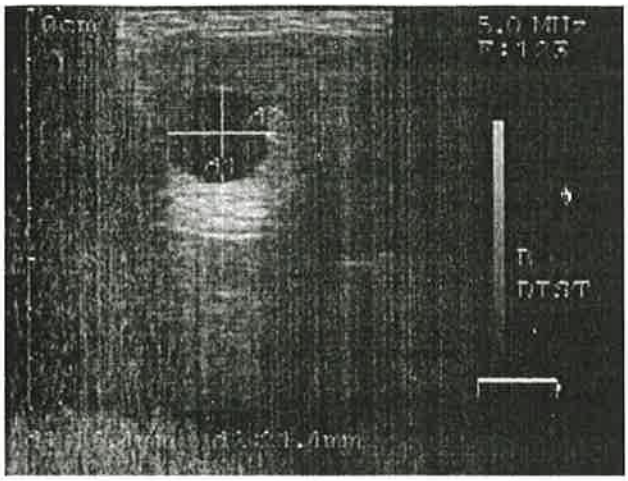

Fig. 1 .Twin embryos before reduction of one

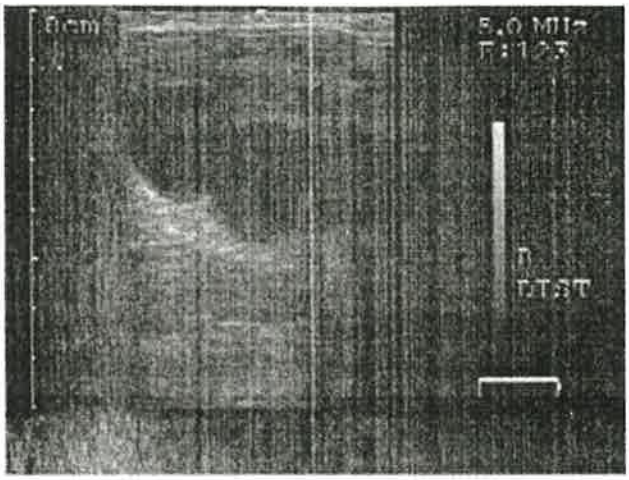

Fig.2.Single embryo after successful reduction

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