

CLINICAL CASES: OVERCOMING THE ODDS!

Kevin D. Dippert, PhD, PAS
Director, Equine Reproduction Concepts, LLC

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To share with you a recent case, in 2003, a 21-year-old Quarter Horse mare was entered into our ET program. In taking advantage of the recent AQHA rule change, the owner wanted to try and get as many embryos from his mare as possible. This particular client was aware of the potential age-related challenges that laid ahead but nonetheless would appreciate any pregnancy that was obtained. Years earlier, a uterine biopsy was performed on this mare identifying some uterine compromise. The owner decided not to breed her for 2 years. Then, in 2001 he decided to enter into an ET program at another facility. This resulted in 1 foal. During the 2002 season, efforts were made to obtain a pregnancy but repeated attempts only resulted in the loss of twin pregnancies. So in March of 2003, the mare arrived at ERC and the agenda began.

The owner made it clear from the beginning that he did not want to breed his mare past July. This left us with approximately 4½ months to obtain 1 or more pregnancies. With the use of short cycling procedures (bring into heat earlier than usual), we felt there was enough time to manage 7 or 8 cycles. Before coming to ERC, it was already confirmed that this mare was cycling so efforts were previously made to breed her. Within 3 days after arriving from Texas, we performed an embryo recover attempt. Unfortunately, no embryo was obtained. This mare received a prostaglandin shot to hasten the following cycle. As 2 dominant follicles developed, semen was ordered and inseminated shortly before ovulation. To everyone's delight, this cycle did result in the recovery of 1 healthy embryo. Embryo transfer procedures followed and a pregnancy was confirmed 5 day later. Since this mare presumably had some compromise to the uterus, we were carefully monitoring her for any complications following the recovery attempt (i.e. fluid buildup, uterine infection). Nothing of concern appeared so efforts were made to manage

her for another cycle. Semen was again ordered once a follicle reached 35 mm in size and prominent endometrial edema was present. Similarly, recovery procedures produced another embryo which subsequently resulted in a successful transfer. The owner was very pleased with the two pregnancies that had transpired in just 2 cycles. His desire to obtain more pregnancies was reiterated but we cautioned him not to expect this fortunate outcome every cycle. At some point, the odds will fall back to normalcy. With the encouragement to carry on, we continued to manage this mare for more pregnancies. To even our amazement, a total of 7 cycles were monitored yielding 9 embryos. There were a few cycles whereby double ovulations helped to increase the number of embryos recovered. It has long been known that some mares tend to be more prolific than others in yielding embryos. Aside from the mare's own ability to conceive rather easily, it is our belief that the stallion of choice also played a role in the success. This mare was bred with cooled, transported semen from a Quarter Horse stallion standing in New Jersey. In talking with the stallion owner, it appears this particular horse has a very good first-cycle conception rate.

Although we were pleased with the numbers of embryos recovered from this mare, it was not expected that all would result in pregnant recipients. Of the 9 embryos recovered, 6 were classified as excellent to good (Grade 1.0 to 2.0) in quality while 3 were considered fair to poor (Grade 2.5 to 3.5). Since this mare was older, it was foreseeable that 33% of the embryos were of questionable quality. All embryos were transferred. Five of 6 (84%) good quality embryos resulted in pregnancies while no recipients became pregnant with those of poorer quality.

Even though all the embryos did not develop into pregnancies, those 5 survivors broke a single season record at ERC outshining a 21-year-old Thoroughbred mare that, in 2001, yielded 4 pregnancies from just 2 breeding cycles. It is believed that these pregnancies are the first set of 5 ever created in the state of Virginia from a single mare during the same season. For curiosity sake, it would have been interesting to continue breeding this Quarter Horse mare until she stopped cycling in the fall. Maybe 8 or 10 pregnancies could have been achieved? Nevertheless, the owner was very pleased at the arrival of the 5 healthy siblings (3 fillies, 2 colts) last summer.



Five ET Pregnancies were obtained from Zippo's Tammy Te (right, 21-yr-old Quarter Horse).