Equine Reproduction
Embryo Recovery
Embryo Transfer

[The text continues discussing regenerative therapies and their use in equine veterinary medicine.]

The group also discussed administration routes. Many practitioners indicated they inject regenerative products directly into the lesion. This prompted Watts to muse, “But what if there isn’t a place to put the stem cells directly?” Some veterinarians described using regional limb perfusion, both arterial and venous, to deliver the stem cells. This is particularly useful for injuries to tendons and ligaments, such as high suspensory damage. The optimal way to use these therapies to treat injured tendons and ligaments is still being explored.

The discussion also covered the use of platelet-rich plasma (PRP), a popular regenerative modality used primarily for injuries to tendons and ligaments. PRP serves as a type of scaffold for stem cells to perch on (PRP clots once injected). Some practitioners indicated they use PRP and stem cells together, with the theory that the PRP serves as a type of scaffold for the stem cells. Others use PRP on its own, believing it can help repair the injury.

The question of whether it is useful to combine regenerative therapies was also posed. The panel discussed the potential benefits and drawbacks of this approach.Some veterinarians are also experimenting with newer therapies, such as nanofiber technology for tissue engineering and panning for a receptor antagonist protein; and a synthetic three-dimensional “scaffold” that, once placed at the target site, promotes cellular growth.

The panelists also discussed the challenges of regenerative medicine, particularly the lag time between stem cell collection and treating the patient after culturing. Watts suggested using a large dose that might be required at the time of injection, but attendees agreed that this approach is not likely feasible in horses due to the large dose that might be required. However, attendees agreed that this approach is not likely feasible in horses due to the large dose that might be required.

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