Injecting platelet-enriched plasma into joints

A NOVEL therapy that helped the world’s richest sportsman, Tiger Woods, to resume his golf career following a knee injury is now available in the UK to dogs suffering from osteoarthritis.

Jeffrey Schaffer, director of the animal health division of the US medical equipment company Pall Life Sciences, told British veterinary surgeons about its development of a filter system for extracting platelets from canine and equine blood. The platelet enriched plasma can then be injected directly into the joint, where it has been shown to be useful in treating both cartilage and ligament injuries, he said.

Dr Schaffer and his fellow US veterinarian Professor Alicia Bertone, an equine orthopaedic surgeon from Ohio State University, were invited to address audiences of small animal clinicians by VBS Direct, which has also been isolated.

Discospondylitis and epipidal empyema due to a Salmonella species infection

Ioannis Plessas and others, Royal Veterinary College, London

Discospondylitis is an inflammatory condition of the intervertebral disc, the adjacent endplates and vertebral bodies. Staphylococcus pseudointermedius is the most common cause in dogs although a number of other bacterial species have also been isolated. Salmonella infections have been described as a cause of the condition in human patients but there are no previous reports involving these bacteria in dogs. The authors describe a case involving a seven-year-old intact male boxer in which the history, clinical signs and magnetic resonance imaging suggested discospondylitis and epidural empyema and Salmonella was identified on blood culture. Following surgery and antimicrobial therapy, the patient made a full recovery.

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BVOA to discuss feline orthopaedics at April meeting

THE spring meeting of the British Veterinary Orthopaedic Association will be held on Wednesday 2nd April in the Hilton Metropole Hotel, Birmingham. The subject will be feline orthopaedics.

Subjects and speakers will be (in order):

- Management of feline elbow fractures – Denis Marcellin-Little; and Exoprotheses in dogs and cats – Denis Marcellin-Little. The day will finish with the presentation in memory of Professor Leslie Vaughan.

The association’s AGM will also be held during the day.

For details see www.bsvaportal.com/bvoa/Meetings/BVOAMeetings.aspx.
affected limb on a pressure plate. Any fluid left over after the first treatment can be frozen and used later for a second treatment. This may be particularly valuable in those dogs where it is not immediately clear which joint is the source of the lameness in a particular limb, Dr Schaffer noted.

However, once defrosted, the plasma would have to be used immediately. Like the centrifugation process used previously to concentrate platelet cells, thawing causes activation of the cells and the release of the cytokines contained in the cytoplasm.

Less invasive
Prof. Bertone believes that platelet treatment will be appealing to both veterinarians and dogs’ owners as a much less invasive technique than some of the surgical alternatives such as joint replacement.

Subjectively, the filter-based device used to obtain the platelet concentrate… was easy to use, and the entire procedure from initial sedation to completion of the intra-articular injection took about 30 minutes.

“Although the study found significant effects at 12 weeks after treatment, further studies are needed to determine the optimal dose and the duration of effect,” she notes in her paper published in the Journal of the American Veterinary Medical Association (November, p1,291).

The US’s most successful golfer is not the only leading sportsman to have used platelet rich plasma treatment and publicly acknowledged its role in speeding a return from injury.

Tennis player Rafael Nadal, basketball player Kobe Bryant and American footballer Troy Polamalu are also on record as having undergone this treatment.

However, some orthopaedic specialists in North America are unpersuaded by the currently available evidence on the efficacy of this form of treatment.


“Currently, there is a paucity of data supporting the use of PRP for the management of focal traumatic osteochondral defects. There is limited evidence suggesting short-term clinical benefits with the use of PRP for symptomatic osteoarthritis of the knee, but the studies published to date are of poor quality and at high risk of bias.

“Further high quality comparative studies with longer follow-up are needed to ascertain whether PRP is beneficial, either alone or as an adjunct to surgical procedures, in the management of articular cartilage pathology,” he said.