Bacterial meningitis after sinus surgery in five adult horses.

Bach FS, Bodo G, Kuemmerle JM, Bienert-Zeit A, Hainisch EK, Simhofer H.

Source


Objective

To report meningoencephalitis as a complication after paranasal sinus surgery in 5 horses.

Materials and methods

Case series of adult horses (n = 5). Medical records (2005-2010) of 5 horses that developed neurologic signs after sinus surgery were reviewed to identify potential risk factors, cause(s), or common pathways for infection.

Results

Underlying diseases were primary (n = 1) and secondary sinusitis (4) because of apical dental infection (1), sinus cyst (2), or masses in the ethmoturbinate region (2). Horses were treated by conventional surgical approaches and aftercare including repeated sinus lavage. Four horses had undulating pyrexia postoperatively despite antimicrobial therapy. All horses developed neurologic signs, eventually unresponsive to treatment. Suppurative meningoencephalitis was diagnosed macro- and/or microscopically on necropsy in all horses.

Conclusions and clinical relevance

Meningitis is a rare but fatal complication after sinus surgery in horses.


Bertone AL, Ishihara A, Zekas LJ, Wellman ML, Lewis KB, Schwarze RA, Barnaba AR, Schmall ML, Kanter PM, Genovese RL.

Source


Objective

To evaluate intra-articular autologous protein solution (APS) for the treatment of osteoarthritis in horses.

Materials and methods

40 client-owned horses with naturally occurring osteoarthritis. APS was generated from a dual-device system that concentrated plasma and WBC proteins and enriched platelet growth factors. Horses were randomly assigned to receive an intra-articular injection of 5 mL of saline (0.9% NaCl) solution (n = 20) or APS (20), exercised on a treadmill, and evaluated on the basis of lameness grades, kinetic gait analysis, joint circumference, and range of motion for 14 days. Horses that received saline solution were administered APS at termination of the study, and clients scored horses for lameness and discomfort before, 12 weeks after, and 52 weeks after the APS injection.

Results

The APS group had significant improvements in lameness grade, asymmetry indices of vertical peak force, and range of joint motion by 14 days, compared with baseline or control group values. No adverse effects associated with APS treatment were evident. Clients assessed lameness and comfort as improved at 12 and 52 weeks. The APS had greater likelihood (OR, 4.3 to 30.0) of a therapeutic response in horses with a lameness score < 4, < 10% vertical force asymmetry, or absence of marked osteophyte formation, subchondral sclerosis, or joint space narrowing. Concentration of interleukin-1 receptor antagonist in APS was 5.8 times that in blood.

Conclusions and clinical relevance

Intra-articular administration of APS can be considered an effective treatment option for equine osteoarthritis, with the potential for disease-modifying effects.