Acupuncture for Treating Osteomuscular and Postoperative Pain in Horses: Scientific Evidence

Acupuncture is used for diagnosing musculoskeletal conditions, and these conditions are the predominant reason why horses are referred to acupuncture. Acupuncture is used by 68% of veterinarians from North America and Europe to treat postoperative pain and osteomuscular problems(1) and by 22% European veterinarians to treat equine back pain(2). Recent studies have evidenced the effect of acupuncture on treating osteomuscular and postoperative pain in horses. This paper aims, by analyzing the scientific relevant information in the area, to perform a critical review regarding the effect of acupuncture for treating 1) osteomuscular problems, and 2) postoperative pain in horses. Standard scientific requirements are based on the CONSORT (Consolidated Standards of Reporting Trials) guidelines and should include control groups, blinding, and randomization. However, only a few studies encompass these criteria. Instead, outcomes are usually based on the comparison of the effect of acupuncture before and after treatment. This is a bias in acupuncture research and the reason why acupuncture is questioned in the scientific scenario, because spontaneous improvement or placebo effect may account for the positive outcomes. Laminitis is the greatest challenge of all musculoskeletal conditions. The only blind controlled study reported no differences in clinical score, stride lengths, and force plate analysis, either between the electroacupuncture and control group or along the time in horses and ponies suffering from chronic laminitis(3). Two recent unblinded and uncontrolled trials reported that lameness assessed clinically and by inertial sensor-based lameness evaluation system, improved significantly one week after the second treatment(4). The second treatment improved lameness even further compared to the first one(5). Acupuncture failed to improve palmar heel pain in a blind controlled trial, however a small sample size (9) was studied(6). Chronic back pain is another critical problem in athletic horses. Acupuncture improved the enzymatic muscle profile(7), and multiple studies reported the beneficial effect of acupuncture in treating back soreness(8,9) and reducing lameness in horses suffering from joint, shoulder, fetlock, laminitis and paralysis (9), but again they were unblinded and uncontrolled. The only randomized blind positive and negative control study investigating the effect of electroacupuncture in horses suffering from thoracolumbar pain showed that, after the second treatment (6 days) with acupuncture, pain scores were lower than phenylbutazone and saline treatments, and remained low 2 weeks following acupuncture(10). Perioperative analgesia is another area where acupuncture could be useful. Electroacupuncture may be used to provide analgesia for soft tissue surgeries(11) and pharmacopuncture potentiates the effects of drugs. In two blind randomized studies, acupuncture and pharmacopuncture induced a deeper and similar degree of sedation than saline, and the full dose of acepromazine administered intramuscularly respectively(12) and pharmacopuncture was as effective as the full dose of flunixin to control postoperative pain after orchiectomy (unpublished data to be presented). It may be concluded that, according to blind randomized controlled studies, acupuncture and its modalities is effective to treat back pain and to provide perioperative analgesia. However, more robust scientific research is necessary to either confirm or not the analgesic effect of acupuncture in other orthopedic problems in horses.

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