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# *SUXIBUZONE AS A THERAPEUTICAL ALTERNATIVE TO PHENYLBUTAZONE IN THE TREATMENT OF LAMENESS IN HORSES*

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***Introduction:*** *Phenylbutazone (PBZ) is one of the most commonly used non-steroidal anti-inflammatory drugs in equine medicine. It is mainly used to treat musculoskeletal disorders which are normally accompanied by lameness. However, repeated administration of this agent can cause adverse effects due to its high gastrointestinal ulcerogenic potential. Suxibuzone (SBZ) is a prodrug of Phenylbutazone that has shown a lower ulcerogenic potential but similar efficacy when comparing both agents orally administered at equimolecular doses to laboratory animals. During years this assumption has been extrapolated to the horse without specific studies being carried out in order to confirm it. In a recently published study it was demonstrated that SBZ has much better gastrointestinal tolerance than PBZ when orally administered to horses at equimolecular doses. The objective of the current study was to compare the clinical efficacy of both molecules in the horse in order to confirm the above mentioned assumption.*

***Material and Methods:*** *A multicenter, controlled, double blind and randomised Clinical Trial was performed in adherence to the VICH-Good Clinical Practice guideline. A total of 160 lame horses were selected and randomly allocated in two groups. Animals in one group were treated with PBZ during 8 days at the intended therapeutic dosage. Animals in the other group received an equivalent treatment with SBZ (DANILON® Equini). Four clinical examinations were performed to each animal during the study (before the start of treatment or Day 0, at Days 3 and 6, and at the end of treatment or Day 9). Degree of lameness while trotting as well as inflammation and pain to palpation associated to lameness were assessed during these controls. In addition, veterinarians were asked to evaluate the overall result of each treatment at Day 9. Relapses observed during the first week after the end of the treatment were also recorded.*

***Results:*** *Percentage of animals in which lameness had completely disappeared at Day 9 was higher in SBZ than in PBZ group. In addition to that, percentages of cases without lameness observed during examinations performed at Days 3 and 6 in SBZ group were much higher than in PBZ group. However, none of these differences were statistically significant. On the other hand, SBZ eliminated the symptom of inflammation in a similar percentage of cases than PBZ, and pain to palpation in a significantly higher percentage. According to the evaluation performed by veterinarians, overall result of treatment with SBZ was significantly better than the result of treatment with PBZ. Percentage of relapse during the first week after treatment was similar in both groups.*

***Conclusion:*** *According to the results obtained both in this and in the previous tolerance study carried out by the same research team, SBZ eliminates lameness with a similar efficacy than PBZ although with a better gastrointestinal tolerance, when comparing both agents orally administered at equimolecular doses in the horse. Therefore, it is concluded that SBZ is an excellent therapeutic alternative to PBZ for the treatment of musculoskeletal disorders accompanied by lameness in this species.*

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