The frequency of limited mobility of the cervical vertebrae in sport horses

Summary

The cervical spine plays an important role in the mobility of horses. Cervical vertebrae can move relative to one another in several planes. Overloading may limit their mobility, possibly even resulting in lameness. The study aimed at determining the frequency of reduced vertebral mobility in horses showing no apparent clinical symptoms. The sample consisted of 100 sport horses whose owners had not observed any motor problems indicative of back problems. The horses' first six cervical vertebrae (C1 to C6) were examined by the palpation method. Analysis of the data showed that 95% of the horses had a problem with at least one vertebra, and 10% with all of them. Mobility was most often limited in the atlas. Dysfunction was less common in subsequent vertebrae. In addition, a positive correlation (at $p < 0.01$) was found between cases of limited mobility in C1 and C2 and between limited mobility in C5 and C6. If the problem occurred in two vertebrae simultaneously, it was most often in C1 and C2; in the case of three vertebrae it affected C1, C2 and C3; when four were affected it was C1 to C4; and when five were affected it was C1 to C5. Restriction of mobility within a single vertebra was registered only in C3. The results suggest the need for preventive monitoring by horse owners and greater caution during training.

KEY WORDS: horse, cervical spine, cervical vertebrae