

ESVCN



European Society of
Veterinary & Comparative
Nutrition



CONGRESS PROCEEDINGS

23rd Congress of the European Society of Veterinary and Comparative Nutrition



University of Torino - Italy | September 18th - 20th 2019



UNIVERSITÀ
DEGLI STUDI
DI TORINO

Animal Nutrition Unit
Dept. of Veterinary Sciences



uniss
UNIVERSITÀ DEGLI STUDI DI SASSARI

Co-organizer:
Animal Nutrition Unit
Dept. of Veterinary Medicine

Cases of stomatitis induced by *Setaria glauca* and *Echinochloa crus-galli* in horses

Cavallini D.^{1,2}, Pagliara E.², Raspa F.², Valle E.²

¹Department of Veterinary Science, University of Bologna, Italy; ²Department of Veterinary Science, University of Turin, Italy. e-mail: damiano.cavallini2@unibo.it

Introduction. Among the several possible causes of stomatitis are reported in bibliography certain types of hay, especially *Setaria* spp. and *Ranunculus* spp. [1,2,3]. These botanical species could cause mucosal lesions in the mouth, resulting in local infection, and the formation of vesicles and ulcerations [1,4,5]. Histological examination usually shows pyogranulomatous lesions with the presence of foreign bodies such as bristles stuck into the mucosae [2].

Case Report. In February 2019 three horses (10±3 y old, 1 mare and 2 geldings, body weight 475±25kg and 3/5 body condition score) were presented for excessive bloody salivation. The horses were stabled at the Military veterinary centre, where they were kept in box stalls with no access to pasture and were in full work at the time of examination. A full clinical examination was carried out and tissue biopsies taken. Horses exhibited anorexia, chewing difficulty and pain, slightly enlarged mandibular lymph nodes, drooling (sometimes with haemorrhagic salivation), gingival hyperaemia and oedema. Ulcerative lesions (1-4 cm) affecting mostly the buccal vestibule, gingival collars of upper incisors and the upper lip margin were detected.

Unexpectedly, eosinophilic infiltration resulted on histological evaluation. From the history, symptoms had appeared a few weeks after the hay had been changed to one of a lower quality. For this reason, it was recommended that the current hay should be immediately replaced by a new hay, of known good quality. Following the application of these measures, spontaneous lesion resolution occurred within a few days. No antibiotic administration nor antiseptic solution flushing were therefore needed as is often required in most severe cases. After confirming stomatitis due to hay provision as the most likely cause of the clinical problem, a specific investigation was conducted to evaluate the botanical species involved in the pathogenesis. *Setaria glauca* and *Echinochloa crus-galli* after macroscopic evaluation were found in the hay being fed and thought to be mainly responsible. With drought during an Italian summer, a reduction in hay quality occurs resulting in the potential for a greater presence of the botanical species causing such lesions. In fact, these weeds show stronger resistance to drought compared with the good components of hay. Consequently, the increasing scarcity of good hay being produced results in an increase in the hay price, favoring in many stables the use of cheaper and lower quality hay.

Conclusion. This case series highlights the importance of appropriate horse nutrition and management. This problem is useful to report, as it can happen again in years with low good quality hay production. In such situations, more attention by nutritionists is needed to avoid the repeat of such nutritional associated clinical cases.

References: [1] Lewis (1995) Williams & Wilkins; [2] Turnquist et al. (2001) J. Vet. Diagn. Invest. 13(3): 238-240; [3] Green (2001) Vet. Rec. 149(3): 95; [4] Chandler (2001) Vet. Rec. 149(13): 399; [5] Wright (2001) Vet. Rec. 149(4): 128.