Kocatepe Veterinary Journal

Kocatepe Vet J. (2023) 16(2):248-251

DOI: 10.30607/kvj. 1276289

CASE REPORT

Stereotypic Behaviour Observed in a Thoroughbred Horse after the Earthquake: Box Walking

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ABSTRACT

The material of this case report consisted of an 8-year-old Thoroughbred horse. According to the information, it was learned that the horse was alone in the box (4m x 5m) during the earthquake that morning of February 6, was frightened by the shaking and noises, and exhibited the box walking (circling) stereotypic behaviour in the box since then. It was seen that the horse was constantly circling and seemed exhausted on the following days. It was determined that the horse has lost weight, reacted even to very small sounds, got scared, sought a way to escape the box, and behaved aggressively. The daily amount of hay in the ration increased, and also plastic ball, mirror, and 24-hour radio were placed in box to prevent this stereotypic behaviour. At the end of 10 days, it was observed that the behaviour of being afraid of sounds has continued, the behaviour of turning around itself has decreased, and it seemed these were rarely exhibited only in the dark times of the day. A month later, it was determined that the horse continued to training program without any problems, and box walking behaviour was only performed for a short time before feeding. As a result, it is thought that sharing this case of box walking, which is one of the stereotypic behaviours observed in stressed horses, with our colleagues will contribute to the field.

Key words: Box walking, Horse, Stereotypic behaviour, Stress

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Deprem Sonrası Bir Safkan İngiliz Atta Gözlenen Stereotipik Davranış: Kendi Etrafında Dönme

ÖZ

Bu olgu sunumunun materyalini 8 yaşlı bir safkan İngiliz atı oluşturdu. Alınan bilgilerde atın, 6 Şubat tarihinde gerçekleşen deprem sırasında boksunda (4m x 5m) bireysel olarak barındırıldığı, sallantıdan ve seslerden ürktüğü ve o günden itibaren boksta dönme stereotipik davranışını sergilediği öğrenildi. İlerleyen günlerde atın, sürekli olarak döndüğü ve bitkin durumda olduğu görüldü. Kilo kaybettiği, çok düşük düzeydeki seslere bile tepki gösterdiği, ürktüğü, bokstan kaçmak için çare aradığı ve saldırgan davranışlarda bulunduğu tespit edildi. Stereotipik davranışın önlenmesi için rasyondaki günlük kuru ot miktarı arttırıldı, boksa plastik top, ayna ve 24 saat çalan radyo kondu. 10 günün sonunda atta seslerden ürkme davranışının devam ettiği, boksta dönme davranışının azaldığı ve yalnızca karanlık saatlerde nadiren sergilendiği görüldü. Bir ay sonra atın sıkıntısız bir şekilde idmanlara devam ettiği, dönme davranışının yalnızca yemleme öncesi ve kısa süreli olarak gerçekleştirdiği belirlendi. Sonuç olarak stres altındaki atlarda gözlenen stereotipik davranışlardan olan boksta dönme olgusunu meslektaşlarımızla paylaşmanın alana katkı sağlayacağı düşünülmektedir.

Anahtar kelimeler: At, Boksta dönme davranışı, Stereotipik davranış, Stres

*To cite this article: Paksoy Y. Gücüyener Hacan Ö. **S**tereotypic Behaviour Observed in a Thoroughbred Horse after the Earthquake: Box Walking. Kocatepe Vet J. (2023) 16(2):248-251*

Submission: 03.04.2023 **Accepted**: 31.05.2023 **Published Online**: 05.06.2023

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INTRODUCTION

The behaviour defines as the response of a living thing to stimuli in its own environment. Horses, like all living creatures, have their own behaviours. If these behaviours are common in all horses, they are called normal behaviours. Feeding, sexual and maternal behaviours are examples of normal behaviours. Abnormal behaviours (stereotypic behaviour), which are also defined as defects, can be observed in some horses. Wood chewing, cribbing, weaving, and box walking are some of these behaviours (Cooper and Mason, 1998; Nicol, 1999). Stereotypic behaviours cause financial losses as they affect performance and efficiency in horses (Houpt and McDonnell, 1993; McBride and Long, 2001; Wickens and Houpt, 2015). To get the best efficiency from animals, abnormal behaviours should be eliminated (Gücüyener Hacan and Akçapınar, 2013).
Stressful conditions in horses can lead to the development of stereotypical behaviours. Generally, abnormal behaviour is abandoned once the stress factor is no longer exist. In some cases, although the stimulus disappears, the horses cannot stop these behaviours because of the fear of repetition. When this condition is permanent, it might be considered as a behavioural disorder (Mills, 1998). Box walking is one of the most important stereotypical behaviours. Horses want to flee when they feel threatened. If they cannot flee, they start spinning in the box (McBane, 1992; Beaver, 2019). There is no certain treatment for stereotypic behaviour. The success rate of forgetting the behaviour can be increase, by attracting the attention of the horse to new environmental factors. Eliminating stress factors, regulating nutrition, and making in-box enrichments to prevent boredom are positive effects that help to get rid of abnormal behaviour (Young, 2003; Houpt, 2005; Henderson, 2007).

CASE HISTORY

The material of this case report consisted of an 8-years-old Thoroughbred horse, which was used in show jumping in Adana province, and the horse developed box walking after the earthquake. According to the information, it was learned that the horse was alone in the box (4m x 5m) during the earthquake that morning of February 6, was frightened by the shaking and noises, and exhibited the box walking (circling) stereotypic behaviour in the box since then (Figure 1). This behaviour has been reported to persist, sometimes for hours. It was stated that the horse, which relaxes and grazes when it goes out and is together with other horses in the paddock, shows this behaviour after it enters the box and also lost interest in eating.
The horse was started to be followed by the keeper, trainer and veterinarian with observation and camera recordings. The horse was found to be constantly circling and exhausted on 10th of February. It was observed that it lost weight, reacted to even very small noises, was frightened, sought a way to flee from the box, and acted aggressively. It was also observed that as the time spent in the box and the stress increased, it circling more. Some management practices were carried out to prevent startle and stereotypic behaviour. The period of stay in the box has been extended from 11th of February. A radio was placed in the box and played 24 hours for the horse to get used to the sounds. A mirror (2m x 1m) was mounted in the wall where it could see itself completely, and it was aimed to focus his attention there and make him less bored in the box. A plastic ball was placed in every corner of the box, and it was seen that the horse spent a significant amount of the day with these balls. His ration was rearranged, and the amount of roughage given was increased from 5 kg to 10 kg per day.
At the end of the 10-day practice, on the 21st of February, it was observed that the horse was more comfortable in the box, although the behaviour of being scared of the sounds continued, and it rarely showed the behaviour of box walking in the dark times of the day.

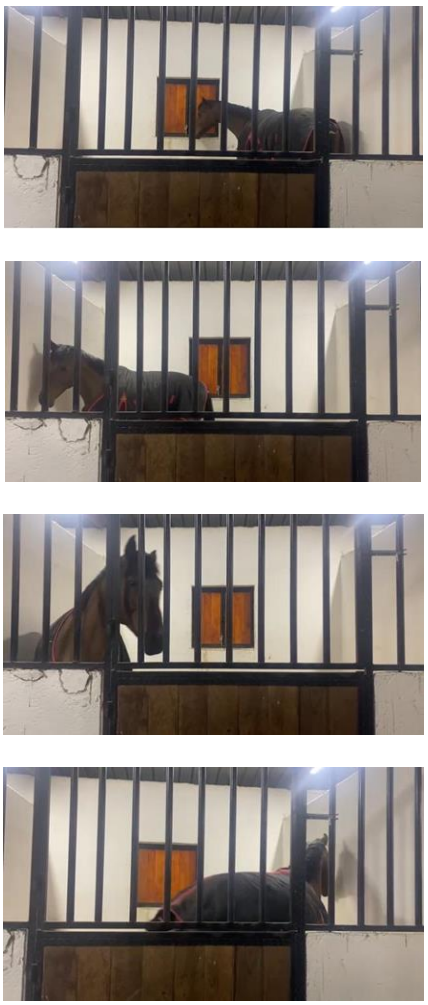

Figure 1: Box walking

DISCUSSION

It has been reported that the rate of abnormal behaviour in domestic horses is more than 15% (Luescher et al., 1991), and this rate is higher in hot-blooded horses, especially in purebred Arabian and Thoroughbred horses than in other breeds (McGreevy et al. 1995; Pell and McGreevy 1999; Mills et al., 2002; Bachmann et al., 2003; Beaver 2019). The fact that the horse that was the subject of this case report was a Thoroughbred competition horse showed parallelism with this situation. Stereotypic behaviours may be seen when horses are alone, do insufficient training, or encounter a disturbing stimulus (Prince and Collier 1974; Gücüyener Hacan and Akçapınar 2013). In our case, the presence of shaking and noise stimuli that threatened the horse during the earthquake and the fact that it was alone in the box during the earthquake supports the literature. The frequency and duration of the box walking behaviour increase over time (Beaver 2019), and horses displaying this behaviour are exhausted, anxious, and unhappy (Houpt et al., 1996). Similar symptoms were observed in the horse in our case.

It has been reported that horses that show serious circling behaviour lose their condition, their racing or sports performances are adversely affected, and their economic values decrease (McBride and Long 2001; Wickens and Houpt 2015). It was observed that the horse presented in our case was reluctant to practice because it was always in motion in the box. It could not jump and it droped obstacles even at low levels because it was sluggish while jumping over obstacles. It is thought that this situation will also reduce its economic value, as it cannot training regularly.

Some management practices are recommended to prevent stereotypic behaviours. As a result of these applications, it is possible to extinguish abnormal behaviour by reducing the stress of the horse. It is stated that increasing the daily amount of roughage in the diet is effective in preventing abnormal behaviours (Houpt et al., 1996; Bachmann et al., 2003). Parallel to this, the amount of roughage in the ration was increased. It has been reported that toys and mirrors in the box are effective in the box walking behaviour of horses (McAfee et al., 2002; Camargo 2014). In our case, as in previous literature, a plastic ball, mirror, and 24-hour radio were placed in the horse's box. At the end of the 10-day practice, it was observed that the behaviour of frightened by the sounds was continued and it rarely showed the behaviour of box walking during the dark hours. One month later, it was determined that the horse continued to train without any problems, and that the box walking behaviour was seen for a short time only before feeding.

CONCLUSION

In conclusion, in this case report it is aimed to convey the stereotypic behaviour of box walking, which can be observed in horses under stress, causing financial and emotional damage and the ways to prevent it, to colleagues, and to contribute to the literature.

Conflict of interest: The authors declared that there are no actual, potential, or perceived conflicts of interest for this article.

Authors Contribution Rate: The authors declared that they contributed equally to the article.

Ethical permission: This study is not subject to HADYEK permission as per Article 8 (k) of the "Regulation on Working Procedures and Principles of Animal Experiments Ethics Committees". The data, information and documents presented in this article were obtained within the framework of academic and ethical rules.

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