

Recurrence of equine coital exanthema in thoroughbred stallions

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Abstract : The object of this study was to evaluate recurrence of equine coital exanthema (ECE) whether re-infection or re-activation of causative virus. ECE is a venereal disease of horses caused by equine herpesvirus type 3 (EHV-3). Like other herpesviruses, it may persist in infected horses for a long time. There is a controversy on the cause of ECE as the recurrence or the reinfection. This disease had occurred firstly on stallions and broodmares in Korea. The horses had rebreded after healing routinely. Next year, the disease recurred on the just same affected horses among stallions. The result of this study, re-outbreak of ECE in stallions is recurrence of ECE, but not reinfection of the virus.

Keywords : equine coital exanthema, equine herpesvirus type 3, recurrence

Equine coital exanthema (ECE) is a venereal disease of horses caused by equine herpesvirus type 3 (EHV-3). Lesions generally are confined to the external genitalia of stallions and mares. The penis and prepuce are the most commonly affected areas in stallions. Lesions begin as small, discrete, circumscribed vesicles or pustules that often become confluent [2]. Spread of EHV-3 infection without coitus has been described. Typically, an inapparently infected mare transmits the virus to a stallion at the time of breeding. Diagnosis usually can be made on the basis of the characteristic clinical signs in mares and stallions. Healing occurs in a few weeks, often leaving depigmented spots. Recurrent coital exanthema usually occurs in aged broodmares but may also occur in stallions. The relationship between viral recrudescence and recurrent coital exanthema in the equine is unknown [1]. Reoccurrences of ECE are seen, especially after periods of stress [6]. Some equine herpesviruses are recurrent due to

reinfection and reactivation [3]. Like other herpesviruses, it may persist in infected horses for a long time. Immune carriers may have no clinical signs [4]. The disease may reappear the next season during times of stress or may not be apparent for several years, if ever again [5]. However, nothing is known about the persistence of EHV-3, but it is assumed [7]. There is a controversy on the cause of ECE as the recurrence or the reinfection.

ECE had occurred firstly on Thoroughbred stallions and broodmares in Republic of Korea in 2005. Two stallions of Korea Racing Authority and many broodmares had expressed typically clinical signs. In addition, the stallions were confirmed by the laboratorial examination [8, 9]. The stallions had rebreded routinely after healing routinely and had not clinical signs during breeding season. In 2006, ECE had recurrent same affected two stallions. The stallions showed clinical signs such as vesicles and pustules on the penis at the

Table 1. Outbreak of ECE in stallions belong to Korea Racing Authority

Symbol of stallions	2005*		2006	
	Clinical signs	PCR	Clinical signs	PCR
KS I	Positive	Positive	Positive	Positive
KS II	Positive	Positive	Positive	Positive
KS III	Negative	Negative	Negative	Not done
KS IV	Negative	Negative	Negative	Not done
The rest of the stallions	Negatives	Not done	Negatives	Not done

*Yang and Lim [9]. PCR: polymerase chain reaction.

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time of breeding. The diagnosis of ECE was carried out by polymerase chain reaction in the same methods in 2005 cases (Table 1).

In conclusion, we are considered that this re-outbreak of ECE in stallions is recurrence of ECE, but not reinfection of the virus.

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