

Hyperkalemic Periodic Paralysis in Horses [HIPP]

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Abstract

Higher levels of serum potassium causes neurological problem in horses. Although this disease is said to be a genetic disorder. It is not always so. More often, this is a problem of diets and it should be remembered that sex predilection cannot be taken granted. This case represents how to identify the earlier symptoms and enable the horse to carry athletic skills.

Keywords: *Equine, HPP, Forelimb weakness, tremors, intermittent episodes, serum profile.*

Commonly this disorder can be diagnosed then the young horse is being closely monitored. The first sign usually noticed by the person is "Tight at the knees". Unlike the other animals, the horses are being used for their physical strength only. Hence, it's important to help them to recover from this illness. Thereby, getting back the horse to attain its muscular strength and physical activities. Here, the aim of the vet is "eliminating" the extra levels of potassium from the circulation,

History and symptoms :

1. Age of the horse, Usually yearlings and less than one year.
2. Muscular weakness.
3. Tight at the knee
4. Reluctant to move
5. Sweating
6. Tremors especially of forelimbs
7. Mild fever.

It is an inevitable thing to feed the horse ALFALFA which is high in potassium. Hence, this factor should be considered as a "Catalyst" of this neurological problem in horses.

Arriving a Confirmation

Even if this disorder may have some differential diagnosis like colic, Monday morning sickness, seizures and narcolepsy. It is easy to diagnose with the above said typical signs and carrying out a serum profile to measure the potassium levels. It should be kept in mind that the blood collection must be done during the attacks, as this is an intermittent disease. When the potassium level is normal, the horse also stands normal.

Treatment

1. Calcium gluconate 40-90 mg/kg IV in 2 liters of 5% dextrose.
N.B: The horse must be monitored for cardiac function.
2. It is wise to go for DNS IV combined with any oral preparations of calcium according to the body weight, as there is no worry to auscultate the heart.
3. Diuretics: The Choice is acetazolamide 5mg/kg po bid will result in earlier recovery along with dietary management.

Handling the case

1. Nursing
2. Treatment

Nursing - Dietary Management

1. Cut off alfalfa
2. Put as salt lick in the magnet
3. Provide ad libitum of fresh water.
4. Offer cats and good quality of grass and hay.
5. Prevent any external "stimuli" which meales the horse panicking
6. Keep the horse "calm" as much as possible.

A more support to arrive confirmative diagnosis is administering potassium chloride 100-150 mg/kg dissolved in 2 litres of water through stomach tube will provoke the symptoms very clearly!!!! And this test is a double edged sword. The aim of U the vet is "eliminating" the extra levels of potassium from the circulation

Potassium Level

The normal level of potassium in horses is 3-5mmol/L. If can rise during the periodic attacks to >20 mmol/l . The potassium level higher the symptoms.

Conclusion

- It is an intermittent disease.
- This neurological problem may be varnished away with the age progresses, if the symptoms are mild.
- In spite of treatment, it may lead to progressive paralysis and death, if not diagnosed earlier.
- The earlier diagnosis, the prognosis is fruitful.

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