

# Management of Peroneal Nerve Paralysis in a Rottweiler Pup

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## Abstract

*A six-month-old male Rottweiler pup presented to the clinics was diagnosed to have peroneal nerve paralysis. Physical examination, radiography revealed the presence of hock and hip abnormality and decided to manage the condition medically with supportive bandaging techniques. The pup was able to walk normally after a treatment period of one month and no complications were recorded further. The symptomology and treatment methods were discussed.*

**Keywords:** *Peroneal nerve paralysis, hip rotation, Ehmer's sling, hock abnormality*

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## INTRODUCTION

Peroneal nerve paralysis is common in companion animals following trauma to its hind limbs. It is characterized by paralysis of muscles that flex the hock and extend the digits resulting in knuckling of foot region [1]. Reports are available suggesting iatrogenic peroneal nerve injuries and sciatic nerve injuries [2]. Most of these cases resolve naturally by providing rest but cases with severe paralysis require treatment in addition to rest. In the present case, management of peroneal nerve paralysis in a Rottweiler pup is discussed.

## HISTORY AND CLINICAL EXAMINATION

A six-month-old pup was presented with limping of left hind limb for a period of 2 weeks. It was said to have been given an intramuscular injection by a local practitioner two weeks before to treat pyrexia condition. Limping was said to have been appeared from the time of injection, which was said to be treated by the local practitioner. The moment the pup was presented to the clinic, there was a limping in the limb with rotation of hip and abnormal flexion and swelling of hock (Figure 1). The hock could be reduced to normal position manually by applying pressure. Pedal and stifle reflex appeared to be normal. Orthogonal radiographic views of the limb suggested mild rotation at hip, abnormal

deviation of tarsals and fracture of tuber calcis (Figure 2). Based on the findings of physical examination and radiography, the condition as diagnosed as peroneal paralysis and was decided to manage it by chemotherapy with supportive bandaging techniques.



**Fig. 1:** *Photograph showing Reverse Flexion of Hock in a Rottweiler Pup.*

## TREATMENT AND MANAGEMENT

The dog was given infrared therapy at hock and hip region and applied Ehmer's sling for 5 days (Figure 3). Tablet Tramadol at the dose rate of 2 mg/kg body weight was given besides nerve tonics and supporting drugs like Neurobion and Zincovit, orally for 5 days. By sixth day, the sling was removed and hock

angle was appeared to be normal with partial limping of the limb. Mild swelling was noticed at hock region and hip was appeared to be normal. Physiotherapy was performed to the limb by flexion of hock for 15 min besides infrared therapy. The hock was stabilized with a padded bandage along with supporting aluminum splint (Figure 4) for another two weeks by which time, the animal was able take weight on the limb normally with occasional limping.



**Fig. 2:** Skiagram showing Fracture of Tuber Calcis.



**Fig. 3:** Photograph showing Application of Ehemr's Sling.

**OUTCOME OF THE CASE**

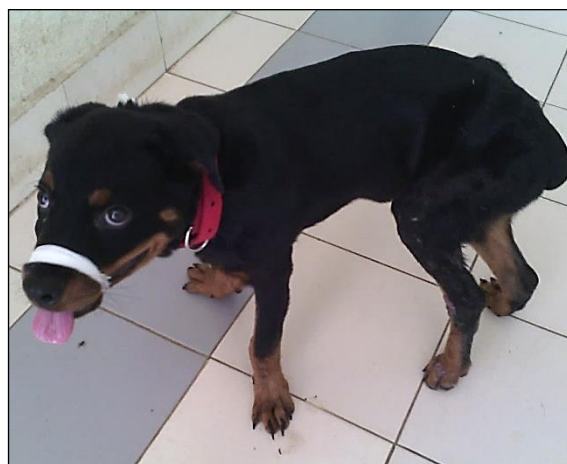
The bandage was removed by third week and advised the owner for continuing physiotherapy. By the end of one month, after

treatment, the pup was able to walk normally over the treated limb (Figure 5).

The etiological factor responsible for the present condition was faulty intramuscular injection, which was given to the pup to treat pyrexia by local practitioner. Similar findings were also reported by Forterre *et al.*, in eighteen dogs and nine cats with iatrogenic nerve injury and by Anatolitou *et al.*, in companion animals with iatrogenic peripheral nerve injury [2, 3].



**Fig. 4:** Photograph showing Application of Reinforced MRJ.



**Fig. 5:** Photograph showing Normal Ambulation of Affected Limb.

Greenough stated that peroneal nerve passes superficially over the lateral femoral condyle and head of fibula, which makes it more sensitive for external trauma and pressure [1]. As the dog was not given any rest even after exhibition of symptoms, the condition was worsened by extreme reverse flexion of hock with rotational abnormality in hip.

Usually, peroneal paralysis conditions resolve naturally if they were given proper rest [1]. Ehmer's sling applied in the present case was thought to be affective against the hip abnormality and supportive splint applied against the hock joint helped in recovery from the condition. Finally, immobilization of limb with external cooptation techniques besides supportive medical therapy ensured a good recovery from the condition in the present case.

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### Cite this Article

Ravi Kumar P, Makkena Sreenu, Devi Prasad V, *et al.* Management of Peroneal Nerve Paralysis in a Rottweiler Pup. *Research & Reviews: Journal of Veterinary Science and Technology*. 2017; 6(1): 17–19p.