Vet.Med.J.,Vol.40,No.3(1992).37:41

DISCOSPONDYLITIS IN DOGS

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(Recived: 14.11.1992)

INTRODUCTION

Discospondylitis is an inflammatory disease of the intervertebral discs and vertebral bodies and is generally associated with bacterial infection (Bennett et al., 1981). The most common clinical signs of affected dogs include spinal pain and neurological deficit. Slowly progressing paresis of limbs caudal to the site of the lesion usally develops. The case starts as inflammatory response and bony proliferation, thus cord compression increases (Henderson, et al., 1974; Gage, 1975; Hurov et al., 1978 and Bennett et al., 1981).

Radiographic findings include lytic lesions of the corticla plates, vertebral bodies and discs, with narrowing of the disc space in almost every case. Sclerosis of the vertebral bodies on either side of the lytic area is also typical (Gage, 1975; Kornegay et al., 1979; Kornegay and Barber, 1980 and Bennett et al., 1981).

Case Findings:

Case 1: German shepherd, 2 years, male.

This dog had a history of increasing pelvic limb stiffness for 3 weeks. It showed stiff pelvic limb gait and short strides. There was marked atrophy of the pelvic limb musculature and the toes were dragged occasionally during walking with difficulty in rising. There was hyperesthesia when exerting finger pressure over L7 - SI. Conscious proprioceptive reaction was markedly delayed in its response (Fig. 1). The body temperature was normal.

Radiographic examination of the lumbosacral region revealed lysis at the caudal end of L7 and the cranial end of S1 giving the disc space an irregular outline. Sclerosis of the bone adjacent to the area of lysis was noted especially on S1 (Fig. 2). Blood was obtained for routine haematological analysis, which involved RBC's count, total leukocytic count, differential leu-

kocytic count, haemoglobin and paked cell volume, and the results were unremarkable.

Case 2: German shepherd, 4 years, male.

The dog was presented with 6 weeks history of ataxia. On examination there was marked muscle atrophy over lumbosacral region with obvious pain and discomfort over L7 - S1. The body temperature was normal. Conscious proprioception exhibited marked delay in its response. Anal reflex was sluggish and the tone of the muscle of the tail was weak. Haematological findings, which involved R B CBs count, total lekocytic count, differential leukocytic count, haemoglobin and packed cell volume were within normal limits.

Radiographic examination of the lumbosacral region showed on plain x-ray film osteosclerosis and reactive bone lesions on the body of L7 - S1. The disc space between L7 - S1 appeared narrower than normal (Fig. 3). Epidurogram showed complete obstruction of cranial forward flow of contrast media over S1 - L7 (Fig. 4 a & b).

DISCUSSION

Discospondylitis, was found to be associated with a bacterial infection. However, it is a realtively rare condition in dogs (**Bennett,** 1981). The presented two cases of large dog breeds showed predisposition for discospondylitis, similar findings were reported by **Kornegay et al. (1979) Kornegay and Barber (1980) and Bennett et al.** (1981).

Diagnosis was based on the clinical features and the typical radiographical changes. The most consistent clinical signs of discospondylitis were spinal pain and stiffness. In some cases neurological abnormalities included hyperesthesia, ataxia, weakness, paresis and paralysis. Compressive discospondylitis at L7 - S1 was considered one of the etiological agents of cauda equina syndrome (Lenehan, 1983). In the presented cases rectal temperature and haematological findings wre within normal limits. This result was in agreement with **Henderson et al., 1974 and Bennett et al., 1981.**

Radiological investigation provided the most useful diagnostic aid. The findings included lytic and osteosclerotic lesions with narrowing of disk space. Compressive discospondylitis was diagnosed on the basis of plain x-ray film and confirmed by epidurography. Epidurograms were considered abnormal when complete obstruction of cranial forward flow of contrast media over the lumbosacral junction was detected (**Selcer et al., 1988 and Tellhelm, 1990**) .

SUMMARY

Two cases of compressive discospondylitis in German shephered were diagnosed between L7 - S1. The clinical, radiographic and epidurographic features were described.

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Fig.(1): Bilateral conscious proprioceptive reac tion of the pelvic limb markedly delayed in their response.

Fig.(2): Discospondylitis at L7-S1 showing bony lysis and irregular disc space (curved arrow) and sclerotic bone lesion of S1 (arrow head) .

Fig.(3): Compressive dis cospondylitis of L7-S1. Note the osteosclerosis , reactive bone lesions (arrows) and narrow in tervertebral disc space.

Fig.(4 a):Epidurogram in lateral view with maxi mal extention of lum bosacral junction. Note the reactive bone lesions compresing the contrast material and did not per mit cranial flow of con trast media.

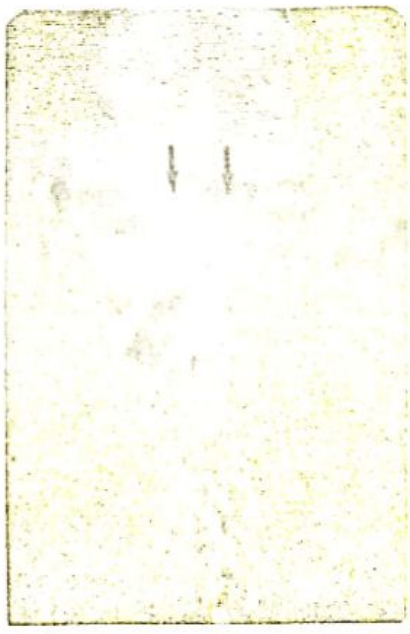

Fig.(4 b):Epidurogram in ventrodorsal view . Note the Contrast me- dia is located caudal to the lumbo sacral inter vertebral disc space (arrows).