

Acute Pancreatitis in a Dog: A Case Report

By
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Introduction

Acute pancreatitis is an important disease of the canine which is seen periodically by most veterinary practitioners. These cases present an intriguing challenge to the practitioner not only in making a correct diagnosis, but also in successfully treating these cases. This paper reviews one such problem case seen at Stange Memorial Clinic and discusses the diagnostic methods used.

Case Report

A two year old male poodle was admitted to Stange Memorial Clinic with the owner complaining of the animal being sick for the past four days. The dog had vomited two days earlier and was presently running a sub-normal temperature. The physical examination showed the dog to be dehydrated; there were ulcers in the mouth, and the dog had a foul breath.

Initial Lab Results:

Hb	21.7 gm %
PCV	66 %
WBC	17,000
Seg. Neutro	81 %
Band Neutro	7 %
Lympho	10 %
Mono	2 %
Temp	98 °F
BUN	49 mg %

With this much initial information, what are at least four things that you

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would consider a possible tentative diagnosis?

An abdominal scout radiograph was taken; this proved to show nothing significant. Does this rule out any of the things you have considered as possible diagnoses?

The dog was then given 500 cc 5% dextrose-½ saline, corticosteroids, B-vitamins, and chloromycetin and prepared for surgery. A routine exploratory laparotomy found only a very inflamed pancreas which appeared to be undergoing necrosis and self-digestion.

The surgeon put 1,000,000 units of aqueous penicillin and 2 cc of corticosteroids in saline into the abdomen and then performed a routine closure. The dog was put on 1/100 gr. atropine, 200 cc 5% dextrose-½ saline, 200 cc Ambex, 20 mg. chloramphenicol, and 1 cc corticosteroids b.i.d.

Lab results—2 days following surgery

Hb	16.4 gm %
PCV	50 %
WBC	22,400
Segs.	78 %
Bands	9 %
Lympho	13 %
BUN	18.8 mg %
Glucose	131 mg %
SGPT	50 S.F.
Lipase	1.51 c.c.u.

What is your tentative diagnosis now?

Six days after surgery the dog had recovered sufficiently to go home. Six days later the dog was returned to Stange Memorial Clinic. The dog had diarrhea, was

vomiting, and had a subnormal temperature. It had not been eating or drinking the past two days and appeared uncomfortable and restless.

Lab data:

Hb	18.6 gm %
PCV	60 %
WBC	15,000 %
Seg.	68 %
Band	1 %
Lympho	24 %
BUN	160 mg %
Glucose	108 mg %

Urinalysis:

Color	Yellow
Sp. Gr.	1.015
pH	6.0
Albumin	+1
Sugar	+1 clinitest
Bilirubin-conj.	slight
SGPT	126 S.F.
Lipase	2.5 c.c.u.

What major things should you consider in your diagnosis now?

The dog was given the same treatment as indicated before. Three days later, the lab data showed the following:

Hb	12.5 gm %
PCV	38 %
WBC	15,200
BUN	110 mg %
Urine Sp. Gr.	1.035

Apparently, the dog was again making a "come back." One week later the lab data was as follows:

Hb	12.1 gm %
PCV	34.5 %
WBC	11,400
Seg	81 %
Band	7 %
Lympho	12 %
BUN	45 mg %
SGPT	54 S.F.
Lipase	1.9 c.c.u.

The dog had returned to solid foods— eating $\frac{1}{3}$ can of K/d per day and was getting $1\frac{1}{2}$ cc chloromycetin, 1/100 gr. atropine and $\frac{1}{2}$ cc vitamin B complex per day. Two

days later the BUN was back up to 69. Lipotrophin was again added to the dog's treatment. The dog continued to eat but died during the night two days later.

Necropsy

The post-mortem exam showed no gross lesions in the pancreas, liver, or intestine. Histo-path showed no microscopic lesions in these tissues, but did show some proteinaceous casts in the glomerulus and kidney tubules. What is your diagnosis now?

Discussion

Acute pancreatitis will continue to be one of the more difficult conditions that the practitioner is faced with diagnosing and treating until more practical, accurate and specific clinical-path tests are generally available to him. The clinical signs of these cases as well as the evidence practicably obtained clinically are often vague.

At present an increased level of serum lipase is considered specific for pancreatitis; however, serum lipase elevations have been reported in chronic hepatic disease, liver cirrhosis, and intestinal obstruction. At present there are two standard methods of measuring serum lipase levels; the Sigma Teite method and the Cherry- Crandel method—neither of which are easily run in the average practitioner's clinic. Here at Stange Memorial Clinic we have found that any reading over 1.0 in either the Sigma-Tiete or Cherry Crandel units to be a significant rise.

Serum amylase levels rise immediately with acute pancreatitis, but again serum amylase levels reportedly rise under several other physiologic and pathologic conditions.

Obviously a better understanding is needed of the factors which control enzyme levels in the body if these tests are to be of consistent value to the practitioner. Secondly, a faster and more practical method of measuring enzyme levels must be developed if these parameters are to be useful to the general practitioner. Finally it would seem that cases such as this indicate the need for further study

into pathologic and regenerative changes which the pancreas may be capable of undergoing. In this case a pancreas which was visably inflamed and necrosing was found lesionless six weeks later. In another case recently admitted at Stange

Memorial Clinic, the dog was admitted with a serum lipase level of 16 c.c.u. The dog died before further tests could be run; and on necropsy, no lesions were found in the pancreas.

What's Your Radiograph Diagnosis?

By
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This 8 year old female Dachshund was admitted to the Stange Memorial Clinic on March 14. The owners complained that the dog was very sensitive around the head and neck. They first noticed the condition two weeks ago, but it appeared to get better. Now the condition is worse.

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On physical examination it was noticed that the dog stood with the head low and held the neck rigid. The dog experienced excruciating pain when the neck was flexed and extended. Lateral and ventrodorsal radiographs were taken of the cervical region.

(Answers on page 83)



Figure 1. Lateral radiograph of the cervical vertebrae.



Figure 2. Ventrodorsal radiograph of the cervical vertebrae.