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Aplastic Anemia in a Cat

By
Jeff Johnson*

Like many seniors I had the opportunity to work with a practitioner during summer vacation of the 1970 school year. On June 8, 1970, we were presented with a very interesting case which I feel is worthy of publication.

A 2½ year old, male, Siamese cat was presented to us in extreme emaciation. On physical examination dehydration, depression and a fever of 103°F. were noted. The heart and lungs sounded normal on auscultation. Mild splenomegaly was noted on abdominal palpation. Palpation of lymph nodes failed to reveal any abnormalities. On otoscopic examination a mild ceruminous otitis was detected.

The cat's record showed that it had been vaccinated for rabies, feline panleukopenia, and pneumonitis. The owner related that the cat was anorexic and depressed for 72 hours prior to examination. No feces or urine had been noted for at least 36 hours.

The animal was hospitalized because a tentative diagnosis was not made on initial examination. A hematological examination was initiated. The following results were recorded:

- PCV 53%
- Sed. rate 58 mm./60'
- WBC less than 4000/mm.3
- Differential:
  - Lymphocytes 12
  - Eosinophils 2
  - Polymorphonuclear 59
  - Bands 27

- Hemobartonella negative
- RBC morphology slight anisocytosis
- BUN 30 mg. %

From this we can deduce that a severe granulocytic anemia was present and that the body was responding to the stress by the left-shift.

Treatment was initiated consisting of 5% lactated Ringer's solution with 2½% dextrose intravenously for three days, tetracyclines intravenously, and massive amounts of vitamin B12 and B-complex plus iron intramuscularly. The animal was hospitalized for eight days.

The owner was telephoned during the treatment period to see if any more history could be obtained. It was reported that the cat slept on top of the color television set from early morning until late at night and that it had been in the habit of doing this for almost a year.

The possibility of X-ray toxicity was considered in the diagnosis. The owner was advised to restrain the cat from sitting on its constant perch. The owner was telephoned four months later and it was reported that the cat convalesced for one month but was now in satisfactory health. A follow up hematological study was declined by the owner.

Upon investigation, the possibility of radiation toxicity in this case could not be absolutely demonstrated. However, it is possible that this set could have been far enough out of adjustment to produce excess radiation. It is also a well known fact that, lymphocytes, in response to ra-
diation, respond within a relatively short period of time by decreasing their numbers. Neutrophils, since they respond more gradually to chronic radiation exposure with a gradual decrease in numbers, are a better prognostic aid. Neutrophils recover more slowly than lymphocytes since they have fewer germinal centers. Consequently they are a good index of the body's response to the insult.

I feel that there was indeed a possibility of chronic radiation toxicity, though it was not verified. It was caught early enough so the body's reserves could be rallied in response to the exposure.

REFERENCES


Book Review

By

John D. Berthelsen, D.V.M.

Diseases of Swine Third Edition

Edited by

H. W. Dunne, D.V.M., Ph.D.

The Iowa State University Press, 1970; $23.00

This 1144 page reference and textbook represents a major effort by the authors and the editor to bring to practitioners, students, research workers, and animal scientists the latest and most comprehensive review of what is currently known about swine biology and diseases.

The editor has very effectively brought together the works of 64 authors, each an authority in his or her field. The 60 chapters are conveniently arranged into 8 sections. These sections consist of anatomy and physiology, viral diseases, bacterial and mycotic infections, parasitic infections, toxemias and poisonings, miscellaneous diseases, surgery, and a final section, nutrition, feeds and management.

Because this book is in its third edition, one cannot help but compare it to the 2 previous editions. Four new chapters cover fields of increasing professional interest. They are, gnotobiotic pigs, stomach ulcers, perirenal edema, and aflotoxins. Mycoplasmal pneumonia replaces viral pneumonia and is discussed in the chapter on mycoplasmosis.

Chapters which have been greatly expanded include physiology, abortion, stillbirth, fetal death and infectious infertility, tumors, transmissible gastroenteritis, streptococcosis, skeletal and cardiac muscle degeneration, and hepatitis dietetica. The chapters on colibacillosis and edema disease were expanded and combined into one chapter, emphasizing current views that these diseases are etiologically related. The chapter on bordetellosis was expanded and combined with the chapter on atrophic rhinitis, reflecting the view of the author that the organism represents the major cause of atrophic rhinitis.

Most chapters provide adequate reference lists to aid the research worker, the student, and others wishing to make a more detailed study of a particular disease. It appears that an effort has been made in most cases to include references of the excellent work of investigators outside the United States.

This publication is highly recommended as an excellent addition to any veterinary library.