

Exploratory Surgery in Pets

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Exploratory surgeries are a very useful tool in veterinary medicine. Such surgery can be used for diagnostic and therapeutic purposes in cats and dogs. In this article, we will describe some of the reasons for exploratory surgery and present a case of exploratory surgery in a pet.

Last summer, a four-year-old female Vizsla named Sadie was brought to our clinic for examination. Although she was active and alert, she had refused all food – including treats – for four days. She was drinking normally and there was no vomiting, possible ingestion of poison, or anything else abnormal. The 30-minute physical exam included abdominal palpation, taking the temperature, stethoscope examination of the chest, neural check, etc., and revealed no abnormalities. Her blood work was normal. In an attempt to find the source of the problem, we took abdominal and chest x-rays. Again, all appeared normal. Using our mouth rather than our mind, we attempted to find out whether the dog was eating somewhere other than at the owner's home. The owner assured us that was impossible because Sadie was on a leash whenever outside. We questioned whether she could be 'in season,' as this will frequently cause a dog to be off food. The owner noted that she had been spayed at our clinic and so that should not be a problem. Vizslas are almost always slim and this one certainly fit the picture. To us, she looked and acted perfectly normal. We asked the owner to take the animal home overnight and try to tempt the dog with her favorite treats, or the old standbys like ice cream or beef broth over bread. The owner (thankfully, a patient person) reminded us that he had already done that last night and again this morning.



The owner and his Vizsla returned to our clinic the next morning. Over the course of the night she drank a normal quantity of water, but had refused a cheeseburger, ice cream, beef jerky, baby food (who wouldn't), cheese, peanut butter cookies, chicken broth, and some leftover mashed potatoes with gravy. A physical exam again revealed a healthy, active Vizsla of typical appearance. X-rays were again taken of the abdomen and consistently showed nothing. We hated to use the old medical standby that 'it is just a virus.' Besides, it would not work this time anyway because the owner was a gastro-enterologist at the local hospital. So, we recommended a barium series of the gastrointestinal tract instead and the client concurred. After getting the dog to drink a pint of barium solution, we spent the next eight hours taking x-rays and following the barium as it made its way through the mouth, esophagus, stomach, small intestine, large intestine and rectum. Try as we might, even with the owner's aid, we could not find any abnormalities in the passage of barium through Sadie's GI tract.

We sent the two of them home again for another night of treat experimentation, and as expected, they returned the next morning. Sadie drank water, but showed no interest in her food and had dropped two pounds according to our scales. The results of a few more quick blood tests would give you the impression that Sadie was in perfect health. After a conference with the owner, we finally recommended exploratory abdominal surgery. Our reasoning was that there had to be something wrong and Sadie was still in excellent shape and could easily tolerate a quick surgical procedure. The physician agreed and Sadie was prepared for surgery.

Exploratory surgeries are nothing more than a diagnostic procedure, just like a blood test or x-ray. They can be done on any area of the body. Abdominal ones are probably the most common and can easily be done in less than thirty minutes from first cut to last skin suture. This one, as they commonly do, may have saved Sadie's life.

X-rays are great diagnostic tools. They actually permit us to take a picture of the inside of an animal. They are not in color, rather they are just a black and white picture like that seen on a 1960's television. Since they do not remove the skin to see what is going on inside, how do they give us the picture? Believe it or not, it is all just a matter of density. In our bodies, different tissues and substances have different densities. If you developed an x-ray that had taken a picture of nothing (i.e. zero density), it would appear perfectly black. Using that as a starting point let us put the radiographic picture of an animal on the film. Bone and metal have the greatest density of anything found in or on the body and they appear pure white on the x-ray film. Air is the least dense and it appears black. Liquid is about halfway in between these two extremes and it is sort of gray. Soft tissues like skin, intestines, muscle, etc., are mostly water and they are also middle tones. The various soft tissues are outlined or differentiated on the x-ray by their relative percent composition of water, fat, or air. After viewing a few thousand x-rays, you can easily pick out the various organs and other parts of the body on most films. You know where things should be and their relative density compared to surrounding structures. The problem with x-rays is that if something that should not be there is, the same density as everything around it, you will never know it is there. That is what was going on with Sadie.

The exploratory revealed a mass within her small intestine. We opened the intestine and found a peach pit! They are compressed plant fiber, almost like wood. This one had absorbed a lot of moisture and was the same density as the intestinal wall, and therefore, it did not show on the original x-rays. It had not yet formed a complete obstruction and allowed barium and liquids to pass normally so the barium series x-rays were all normal. And, it was too small to feel when we palpated the abdomen. However, the sharp point on the pit had almost cut its way through the intestinal wall and once perforated, this would have led to a severe and possibly fatal abdominal infection known as a peritonitis. Sadie did not eat because the foreign body was either causing pain or solid food made her nauseous. Her behavior was a typical response to a complete or incomplete intestinal obstruction. We removed the peach pit, closed the intestinal wall, closed the abdomen, and sent Sadie home the next day. That night at home she would have eaten an entire super market if we had let her.

In our practice, we have seen intestinal obstructions caused by bones, tumors, sewing thread, golf balls, sponges, corn cobs, shoes, rocks, etc. We have also seen dogs pass amazing things like fish hooks and chewed-up beer cans. Most of these things show up quickly on regular or barium x-rays, making a diagnosis easy. In a few cases, however, an exploratory surgery supplied both an answer and a cure. Regretfully, today many surgical procedures are done too often, without justification, and have received considerable publicity. If your veterinarian ever suggests an exploratory, ask questions, but understand the procedure's worth.