

## Perianal Fistulae (PAF)

Perianal fistulae (PAF) are inflamed and painful areas that develop around the anus of dogs. The inflammation develops into draining tracts that tend to have a fetid and offensive discharge. PAF are overall, an uncommon problem, but they are more prevalent in German Shepard Dogs.

### Cause

Perianal fistulae are thought to be an immune-mediated disease and may be related to inflammatory colitis or other chronic inflammatory bowel conditions. Some inflammatory intestinal diseases are related to food sensitivities, but in the case of PAF, it is rarely the only contributing factor. Bacteria also play a role, but likely is a secondary or opportunistic component, not the causal agent. Genetic factors also likely play a role, as German Shepard Dogs are widely overrepresented in the PAF patient population. The immune system has both pro-inflammatory and anti-inflammatory chemical triggers as well as recognition of its own cells; an auto-immune or immune-mediated condition is one in which these mechanisms are deranged. In autoimmune conditions, the immune response is activated against the body's own cells. In the case of PAF, this inflammation causes the anal area to be inflamed, painful, with open sores that drain a smelly discharge.

### Clinical Signs

Dogs with PAF have sore bottoms, often with noticeable redness, swelling, and discharge. Patients are painful and therefore reluctant to defecate. Some patients strain for long periods of time and others become constipated because they refuse to defecate. Most patients are extremely reluctant to allow examination of the rectum. Some patients are so painful that they refuse to eat or drink and become markedly lethargic. In some cases the severity of the inflammation leads to a severe, systemic bacterial infection; this is rare but can be life-threatening. These patients should be evaluated right away in order to provide support.

### Diagnosis

PAF is suspected when a patient presents with the typical clinical signs. Sedation may be necessary to complete a full evaluation. Biopsy of the area may be indicated to rule out the possibility of an anal tumor. If a severe infection is suspected, a bacterial culture may be indicated. This problem is often part of a more global inflammation of the intestine (mostly colon), so sometimes a colonoscopy is indicated. In some cases, we try to avoid the expense, risk, and pain of this test, particularly in breeds predisposed to the problem. Instead, we treat based on the presumption of diagnosis in German Shepherd dogs with consistent clinical signs.

Because PAF is a chronic inflammatory and immune-mediated condition, its occurrence might be related to another health condition such as cancer or a rare infection. If this is suspected, additional lab tests and imaging studies such as radiographs (X-rays) and ultrasound exams might be recommended. It is important to consider that starting a patient on immune suppressive medications without first evaluating the possibility of another contributing health condition can put a patient at risk for severe complications.

### Treatment

There are generally two phases of therapy for patients with PAF. In the early phase of the disease, patients are often painful, may have a poor appetite, and secondary bacterial infections and are markedly resistant to handling. In this phase, immune-modulating medications are used at high doses, and steroids may be used to rapidly reduce inflammation and promote appetite. Additionally, pain relief, with oral medications are often necessary. When the patient allows it, using a gentle stream of cold water on the sore bottom for 5-10 minutes a couple of times daily is often helpful for pain relief and cleanliness.

The second phase of therapy begins once the patient is eating well, is more comfortable and the inflammation is under control. Dietary changes might be initiated because food sensitivity can play a role in the development of inflammatory bowel conditions. Steroid doses are rapidly tapered to reduce side effects such as excessive thirst, hunger, and urination. The dose of other immune-modulating medications is frequently tapered slowly to the lowest effective dose and the daily hygiene assistance can be discontinued.

**Prognosis**

Perianal fistulae are a controllable disease, but most patients require medications, supplements, and monitoring for life. Complete resolution to the point of being able to stop all medications is rare with this disease.

**Long Term Follow-Up**

Most patients with PAF are diagnosed and treated by the internal medicine specialists at Veterinary Specialty Center. In the early phase of the disease, patients follow up frequently to assess progress and tolerance of medications. Once patients are stable, recheck examinations become less frequent. Because of the nature of the immune-modulating medications necessary to treat PAF, patients should be followed closely to ensure side effects are minimized. Many patients will be able to have the number, dose, and frequency of medications reduced over time, but it is critical that these adjustments be made when the disease is well controlled. Because decisions about changes in medication are based on observations made during the physical exam in addition to other testing, our recommendation is that follow up for this disease be done at Veterinary Specialty Center, particularly if your primary care veterinarian wants to continue to have input from an internist about the patient's condition. All routine preventive care should continue with your primary care veterinarian.