

Fistula

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Fistula

- A fistula is defined as an abnormal connection of two body cavities (such as the rectum and the vagina), or as the connection of a body cavity to the skin (such as the rectum to the skin). One way a fistula may form is from an [abscess](#)—a pocket of pus in the body. The abscess may be constantly filling with body fluids such as [stool](#) or urine, which prevents healing. Eventually, it breaks through to the skin, another body cavity, or an organ, creating a fistula.



Type of Fistula

- **Perianal F.**
- **Vaginal F.**
- **Genitourinary F.**
- **Enterocutaneous F.**
- **Enteroenteric or Enterocolic F.**
- **Enterovesicular F.**

Etiology

- Inflammatory causes ulcerative colitis, Crohns disease etc, tuberculosis
- Neoplastic causes cancer rectum or anal canal Incidence
- Common and may be simple or complex
- Classified into high or low depending on whether the track passes above or below the anorectic ring
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Pathophysiology

- Inflammation ulceration penetration of the ulcer through all layers of the wall of the viscus involvement of the adjacent hollow viscus in the ulceration connection established. Or the ulceration may involve the abdominal wall leading to opening of the hollow viscous to the outside.

Perianal F.

- Perianal fistulas are tunnel-like formations in the skin and deeper tissues that surround the anal area of dogs. The **lesions vary in severity but at first appear as small oozing holes in the skin.** These holes may become wide and deep and surround the entire circumference of the anus.

Perianal F.



Clinical signs

- painful defecations
- straining to defecate
- constipation
- diarrhea
- mucus or blood in stools
- excessive licking and biting of the anus

Diagnosis

- complete physical examination must include digital rectal examination, since infection or obstruction of the anal sacs can also cause perianal fistulas

Treatment

- **Surgical treatment may be used to remove necrotic (dead) tissue** associated with the fistulous tracts and help promote healing. Cryosurgery and laser are commonly employed. During cryosurgery the diseased tissues are frozen with a special probe. These tissues die and eventually slough, allowing healing to occur.

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- Freezing the tissues may make your dog feel less pain immediately after surgery. Lasers can be used to kill the lining of the fistulas; like freezing, the damaged tissues die and the area gradually heals.

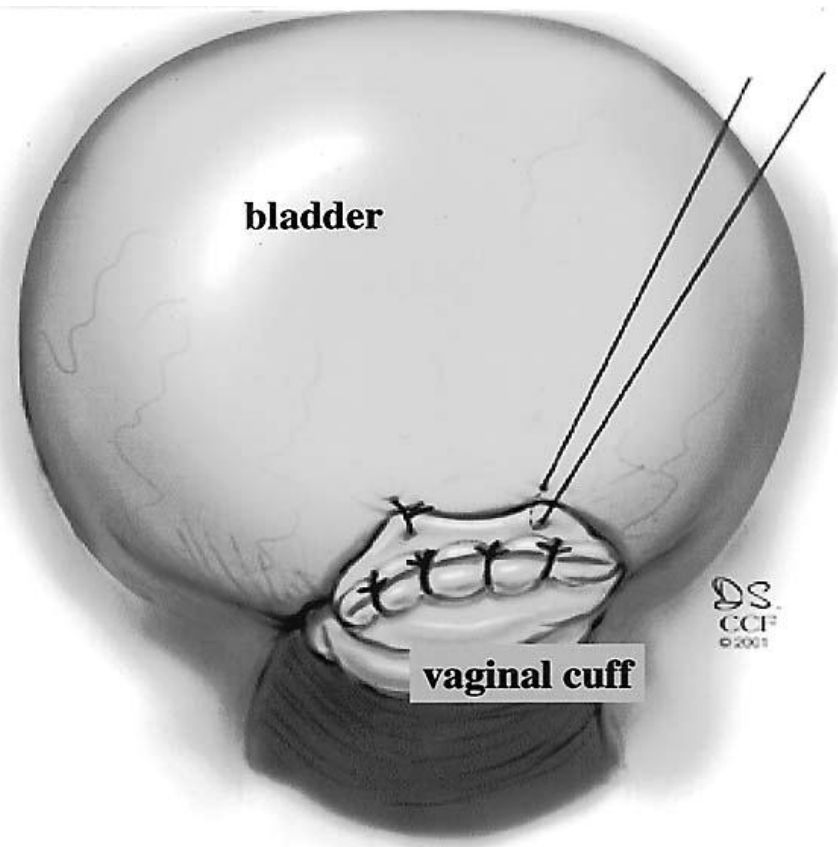
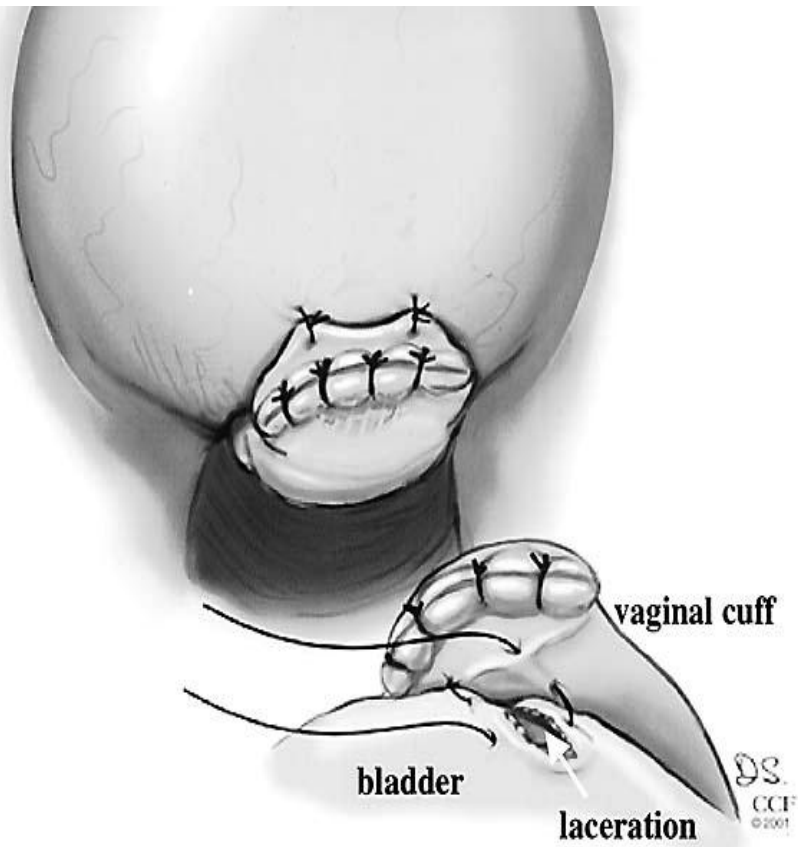


Medical treatment

- a change in diet to a novel protein diet
- antibiotics such as metronidazole
- oral anti-inflammatory/immunosuppressive drugs, such as prednisone, cyclosporine, and azathioprine
- topical immunosuppressive drugs, such as Tacrolimus

Vaginal F.

- Abnormal communication between vagina and other adjacent organs
- Type of vaginal fistula
 - 1- vesico-vaginal f.
 - 2- uretero-vaginal f.
 - 3- urethero-vaginal f.
 - 4- vesico-cervical f.
 - 5- uretero-cervical f.
 - 6- uretero-uterine f.



Clinical findings

- Physical examination revealed constant dribbling of urine and urine scalding. Culture of a urine sample yielded methicillin-resistant *Staphylococcus pseudintermedius* and *Proteus mirabilis*. Abdominal ultrasonographic examination revealed absence of the left kidney, a small, nondistended urinary bladder, and diffuse hepatopathy. Urinary incontinence persisted despite appropriate antimicrobial treatment.

Diagnosis

- Cystourethroscopy and vaginoscopy were subsequently performed and revealed a hypoplastic bladder and a vesicovaginal fistula with urinary leakage through the vaginal diverticulum; no left ureterovesicular junction was identified, consistent with suspected left renal aplasia.

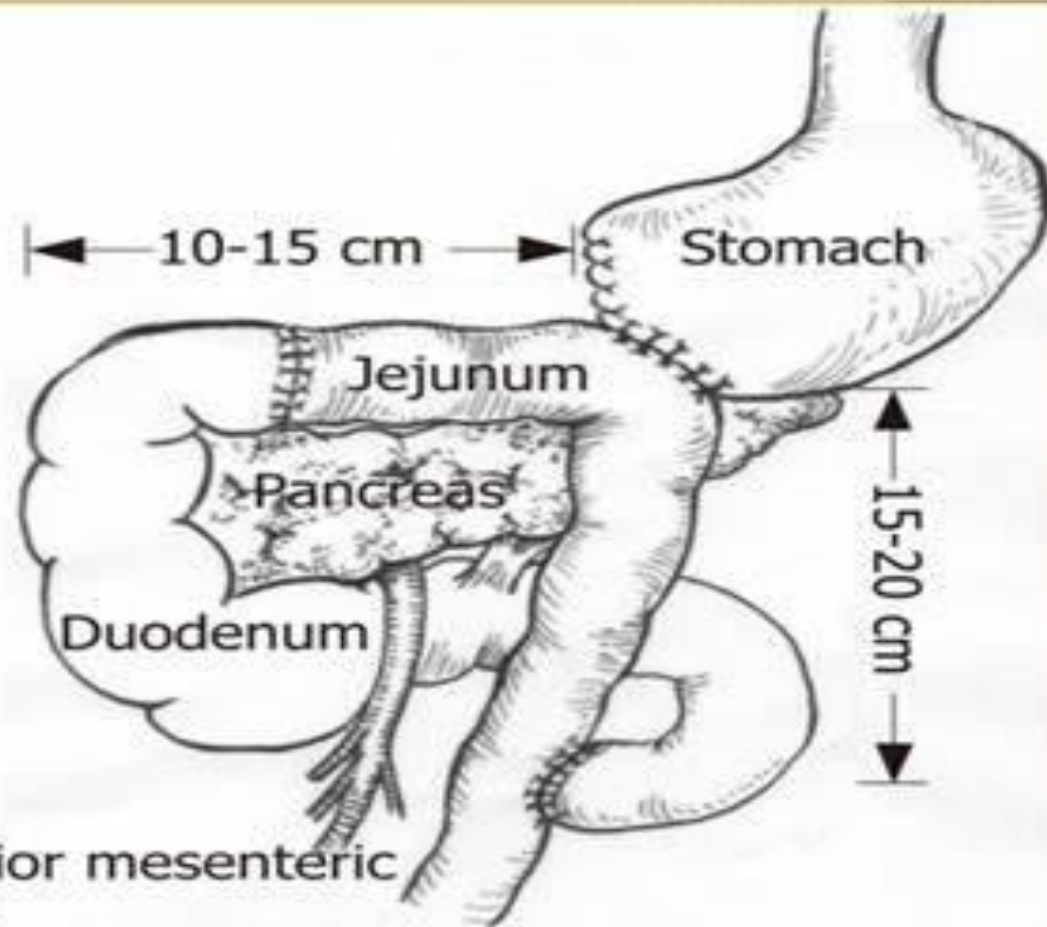
Treatment

- Exploratory laparotomy was performed, and the cranial aspect of the vagina was circumferentially ligated immediately caudal to the fistula. The urinary incontinence resolved immediately after surgery, and lower urinary tract signs improved over the next 2 weeks. Moderate urinary incontinence recurred approximately 6 months later, and a urinary tract infection with *Escherichia coli* was subsequently identified and treated; clinical signs resolved \leq 48 hours after treatment was initiated.

Enterocutaneous F.

- An enterocutaneous fistula (ECF) is an aberrant connection between the intra-abdominal gastrointestinal (GI) tract and skin/wound. Because of differences in management and significant preponderance of small intestinal and colonic fistulae, fistulae originating in the rectum, upper GI tract, or pancreas will not be discussed in this

Roux-en-Y Duodenojejunostomy



Superior mesenteric
artery

Etiology

- 1- congenital
- 2- trauma
- 3- infection
- 4- un-known (iatrogenic)

Diagnosis

- X-ray
- Ultrasonography
- Other tools

Treatment

- Surgery and medical treatment