VAGUS INDIGESTION

ETIOLOGY
It has been divided into two major complications of traumatic reticuloperitonitis:

1. **vagal nerve injury**: inflammatory and scar tissue lesions affected vagal nerve fibers supplying the forestomach and abomasum. In dorsal vagal nerve injury resulted in affected on the reticuloomasal orifice (anterior stenosis) inhibit the passage of ingesta from the reticulorumen into the omasum and abomasum, resulting in an enlarged rumen with abnormal rumen contents. Injury of the pyloric branch of the ventral vagus nerve resulted in affected on the pylorus (posterior stenosis) and inhibited the flow of ingesta from the abomasum, resulting in abomasal impaction.

2. **reticular adhesions**: (Mechanical impairment of reticular motility and esophageal groove dysfunction as a result of reticular adhesions is probably the most important cause of vagal indigestion syndrome), with the latter being the most common cause.

EPIDEMIOLOGY
Vagal indigestion is most common in dairy cows that have a history of traumatic reticuloperitonitis, which may have occurred several weeks or a few months previously. The disease is not restricted to dairy cows; it also occurs in beef cattle and in mature bulls.

PATHOGENESIS
The syndrome of vagal indigestion is characterized by disturbances in the passage of ingesta through the reticuloomasal orifice (failure of omasal transport and anterior functional stenosis) and disturbances in the passage of ingesta through the pylorus (pyloric stenosis and posterior functional stenosis). The characteristic clinical findings are distension of the rumen with pasty or frothy contents because of increased time and maceration in the reticulorumen; alterations in reticulorumen motility, with consequences such as dehydration; an increase in undigested particles in the feces; scant feces; acid-base imbalance; and secondary starvation.

CLINICAL FINDINGS
Ruminal Distension With Hypermotility:
The occurrence of ruminal distension with hypermotility is not particularly related to pregnancy or parturition. **Moderate to severe bloat** is common. There is evidence of loss of BW. The animal has usually been inappetent or anorexic intermittently for the past few weeks. The abdomen is prominently distended and the rumen
movements at the rate of 4 to 6 per minute. The sounds of the rumen contractions are often reduced or almost absent in spite of hyperactivity because the rumen contents are pasty and frothy.

*Ruminal Distension With Atony:*
Ruminal distension with atony is most common in late pregnancy and may persist after calving. The cow is clinically normal in all respects except that she is anorexic; passes only scant amounts of soft pasty feces; and has a distended abdomen and will not respond to treatment with purgatives, lubricants, or parasympathetic stimulants. Ruminal movements are seriously reduced or absent and there may be persistent mild bloat. Fluid-splashing sounds may also be audible on ballottement of the left and right flanks if the rumen is distended with excessive quantities of fluid. The temperature and heart rate are usually normal.

**DIAGNOSIS**
The salient clinical features of vagal indigestion in cattle are in appetence for several days leading to anorexia; a gradually enlarging abdomen, especially on the left side; scant feces; failure to respond to common medical therapy; loss of body condition and varying degrees of dehydration.

Obtaining an accurate history is very important. Most cases of vagal indigestion have been affected for at least several days or a few weeks. The diagnosis can be difficult in the cases that occur in late pregnancy because the animal has usually been housed and fed with other dry cows and daily observation of feed intake and fecal output have not been made, so it is difficult to obtain an accurate and helpful history.

The clinical examination should focus on the state of the rumen and the abomasum. In valuable animals, a left-side exploratory laparotomy and rumenotomy will often be necessary to make a diagnosis. This will allow the determination of the presence of reticular adhesions, obstructive of the reticuloomasal orifice and the state of the abomasum.

**TREATMENT**
The prognosis in most cases is unfavorable but also unpredictable. The problem is to determine the location and extent of the lesion, which may be difficult or impossible even on exploratory laparotomy, rumenotomy.

- **Rumen decompression** using large-diameter tube or rumenotomy, and rumen lavage.
- Daily administration of **4 L of mineral oil for 3 days**.
- **Correction of fluid, electrolyte, and acid-base imbalances.**

**Control**

- Prevent ingestion of metallic and nonmetallic objects
- Administer rumen magnet to all animals eating chopped forage or with access to metal objects.