

Some Case Histories & Clinical Findings of Diseases of the Digestive Tract of Cattle (Radostits)

Case Number 1: 614511

Charolais Bull, 18 months old.

Was in a fight with another bull yesterday. Today—anorexic, slight bloat, stretching and kicking at belly. T - 39. HR - 96. Stretches, tread hind legs. Bright, alert, won't eat or drink, hydration normal. 1 rumen contraction/4 minutes. Right flank full. Some pain on deep palpation of right flank. Rectal: no feces, rumen normal, no other abnormal findings. When recumbent—severe pain on deep palpation of right flank. Scrotum normal:

Na - 138
K - 4.4 Hemogram - stress, dehydration.
Cl - 95

Differential Diagnosis: abomasal torsion, peritonitis, cecal torsion, intussusception, mesenteric torsion, hematoma, ruptured bladder

Laparotomy revealed a tear in omentum and small intestines protruding through it. This was corrected and animal recovered.

Diagnosis: Strangulated intestine.

Case Number 2: 630621

Guernsey Cow, ten years old.

From a herd of seven Guernseys, 40 Holsteins, stanchion barn, grain mixture in parlor (20 lbs/day aver/cow), 25 lb oat and barley silage per head/day, about 10 lb oat/barley straw per head/day. This cow has had bouts of colic in previous years. She lies down, gets up, kicks at her belly. Was lying stretched out on side last night. Calved ten days ago, uneventful, passed the placenta. Last few days milk production down and has had colic but continues to eat reasonably well.

Clinical Findings:

Thin bodily condition, bright and alert, licked salt block and drank water during examination. T - 38.5, HR - 60/min., RR - 16/min. The abdomen is prominently distended on the right side. Ballotment of the right flank reveals "fluid-splashing" sounds. Rectal examination reveals watery feces, a large distended viscus approximately 10 to 12 inches in diameter palpable in the right upper quadrant and immediately below it is another distended viscus about 6" in diameter. The uterus is flaccid and deep in the abdomen. Paracentesis of the abdomen at the level of the sternum and over the right flank was negative. Chloride 97, Na, 133. K9 Hemogram showed "left shift" suggesting some infection. The rumen & its contractions were normal.

Differential Diagnosis: cecal torsion, abomasal distention/torsion, lipomatosis, peritonitis.

Laparotomy - right flank, revealed 180° cecal torsion.

Case Number 3: 634708

Six Year-old Holstein Cow.

Calved five weeks ago, normal calving, cow fine for four days, then started to lose her appetite and dropped in milk production. Has milked about 35 lbs/day (80 lbs last lactation) and has been inappetent (eats hay but not grain) for the past four weeks. Treated for ketosis by referring veterinarian.

Exam: T - 38.7, pulse - 80, R - 20. Cow thin and in poor condition. Urine - ketones positive. Rumen - primary contractions every 40-50 seconds. Ping auscultation left abdomen 10th - 13th rib. Serum electrolytes: Na - 134, K - 3.9, Cl - 88, Ca - 7.9, P - 4.3, Mg - 2.6.

Differential Diagnosis: left abomasal displacement confirmed by laparotomy.

Case Number 4: 630217

Holstein Cow, six years old.

Calved one month ago, was normal for two weeks and then went off feed and down in milk production. Examined on farm two days ago. T - 38.8, HR - 90/min, RR - 30/min. Rumen static, "ping" audible on percussion over right upper flank. Strong ketonuria. Feces on glove was smeary, dark chocolate colored. No improvement next two days.

Clinical Examination (day 3)

Dull, depressed, standing. T - 39.1, HR - 80/min., RR - normal. Feels cold and clammy. Rumen moderately full and sluggish. Distinct "ping" over dorsal third of right paralumbar fossa extending cranially to top of 8th rib. Right flank feels tenser than normal. Rectal—profuse melena (watery, black, tarry feces). A distended viscus is palpable below right kidney. It is tense and measures 6 to 8 inches across. CBC normal. Na 140; K 2.6 (subnormal), Cl 95.

Differential Diagnosis: right abomasal displacement with possible torsion; abomasal ulcers (bleeding) cecal torsion.

Diagnosis: right abomasal displacement.

Case 5: 610358

Feedlot Steers.

Several steers, off feed within last week. Fed 1/3 grain, 2/3 alfalfa hay chopped straw, ADE and minerals. Owner says that he can hear fluid splashing sounds when steers walk.

Anorexia, no feces.

Examination:

T - 38, HR - 100, RR - 30. Both flanks distended. Left flank severely distended. Large firm mass palpable behind right costal arch. Na - 135, K - 31, Cl - 80. Hemogram normal.

Diagnosis: abomasal impaction of dietary origin. also seen in pregnant cows.

Treatment: unsatisfactory. advise slaughter

Prevention: avoid feeding poor quality roughage. In cold weather they eat more & more poor quality roughage which piles up in the abomasum.

Editor's Note: Case No 6 was not presented.

Case Number 7: 635991

Bull - Simmental, three years old.

Became anorexic and bloated four days ago. Self-feeder—straw and alfalfa pellets, liquid supplement. In pen with three other bulls. Gave spanbolets daily for three days. Carmilax boluses for two days. No feces passed.

Owner did rectal and could not feel any feces. Bloated again last night.

Today—soft feces passed—small amount.

T - 38.6, P - 110, R - 24. Left abdomen distended, bull grunts when lying down, 10% dehydrated, rumen bloated and static, can hear fluid splashing sounds in rumen, no feces rectally, large L-shaped rumen rectally, removed 20-25 gallons fluid with Kingman tube.

Neutro - 15,580, Prot - 10.3, Bands - 1140, Fibrinogen - 1600, Lympho - 2280.

Peritoneal tap - RBC 0.43 x 10⁶. WBC 33 x 10³. SG - 1.038, T.P. - 6.2, 60% of WBC are non-toxic neutrophils. Cl - 69.

Semen evaluation—questionable to unsatisfactory.

Diffuse peritonitis, omasal and abomasal impaction.

Sulfamethazine IV.

Differential Diagnosis: traumatic reticuloperitonitis, vagus indigestion, urea poisoning, cecal torsion, abomasal torsion, infection, advanced intussusception.

Diagnosis: traumatic reticuloperitonitis. (large nail found on rumenotomy).

Case Number 8: 637486

Red Holstein 2 Years of Age

Six weeks before calving, trucked from Ontario to Saskatchewan, 1800 miles—one week ago. Completely anorexic two days ago. Slight nasal discharge. Vaccinated for I.B.R. just before shipped. Respiratory disease in the head two weeks ago. Some cows in herd overloaded on barley three days ago. Not sure if this heifer was among overloaded animals. Treated this heifer with penicillin and erythromycin for two days. Cows have access to mouldy cereal silage which seems to cause temporary digestive upsets in some cows.

Clinical Examination:

Cow appears gaunt in abdomen, hydration normal, mental state normal. Temperature 38.8°C, heart rate 96/minute, respiratory rate 30/minute, body weight 500 Kg. Watery foul smelling feces. Rumen movements are weak, cannot hear a complete contraction. Fluid bubbling sounds audible over left paralumbar fossa. Percussion and auscultation reveals a loud ping over an area between 9th and 12th rib middle third to dorsal third on left side. Urine 2+ for Ketones. Rectally no abnormal findings. Deep palpation with a horizontal bar reveals an audible grunt.

Laboratory Findings:

	<u>Clinic Days</u>			
	1	2	3	5
Neutro	7,080	3,515	1,656	1,800
Lymph	10,620	5,700	4,830	2,385
Mono		180	207	270
Total Protein	6.0	5.9	5.2	6.0
Fibrinogen	800	1,000	700	400
Sodium	133	138		
Potassium	5.1	4.9		
Chloride	96	98		
Calcium			6.9	

Differential Diagnosis: left abomasal displacement. Rumen overload. Traumatic reticuloperitonitis, mycotic rumenitis, vagus indigestion.

Diagnosis: left abomasal displacement.

Case Number 9: 634969

Holstein Cow, 6 years of age.

Calved 3 weeks ago, live calf, didn't clean for 8 days. Treated with penicillin for 3 days. Was doing well for first 2 weeks after calving. Milk production up to 65 lbs per day. Then started to go off feed and down in milk one week ago. Was given penicillin again for 3 days. Also dosed with propylene glycol 8 ounces B.I.D. with no response. Now down to 15 lbs/day.

Alfalfa hay, complete dairy ration and minerals & vitamins free choice.

Clinical Examination:

Stands and walks normally. Lethargic. T - 39.6, HR - 76/min., RR - 12/min. Dark fluid scant feces. Rumen feels small and static. Ping audible left side 9-13th rib dorsal third. Milk normal. Urine Ketone negative. Uterus not well involuted. Slight vulvar discharge.

LABORATORY FINDINGS CASE NUMBER 634969

	<u>DAYS</u>			
	1	2	3	4
WBC	16.7			
PCV	31.6			
Neutro	11523			
Bands	1002			
Lymph	4008			
Protein	7.3			
Sodium	134			
Potassium	3.0			
Chloride	95			
Glucose			73	82
Calcium	8.9			
Phosphorus	4.9			
Magnesium	2.0			
Bilirubin Total	7.3			
Bilirubin Conj.	3.0			
SGOT	858			
SDH	174			
B.S.P.	No clearance			

Urinalysis
 SG. 1.004, pH 5.0,
 Protein 25 mg %,
 Glucose neg.,
 Ketones neg.,
 Bile neg.,
 Blood 3+,
 Urobilinogen 0.1

Differential Diagnosis: fatty liver, left abomasal displacement, metritis.

Tentative Diagnosis: LDA - ruled out by laparotomy.

Diagnosis: fatty liver syndrome (high bilirubin, high SGOT, enlarged liver, masses in abdominal cavity). The "ping" was probably due to an antonic rumen. Very sick cows with fatty liver syndrome have little ketonuria.

Case Number 10: 637563-571

During week of October 20-24, 1980 the owner noted that some of his recently stored barley had begun to heat. He cleared an area of the barn and spread the grain around on the floor for drying. The barn door was apparently closed and nailed.

The owner was away from the farm on Friday and when he got back Friday night, found the door open and the cows eating the barley. There were 22 cows.

All cows became clinically ill to some degree. By 12 noon on Saturday several cows had clinical signs of bloat, depression and extreme thirst.

Three of the severely affected animals were referred to the clinic for treatment at 7:30 p.m. Saturday. They were depressed, wobbly on their legs, their abdomens were enlarged. Dehydration was estimated at 10% of body weight.

Rumen lavage was performed on all three and intravenous fluids begun. After the lavage they were offered hay and restricted from water. By 1 a.m. next morning two of these were beginning to eat small amounts of hay.

The owner was advised to restrict the water supply and offer hay to the remaining animals at home. When he arrived home he found 6 additional animals in a state of severe dehydration, depression and weakness. These were also brought to the clinic.

Diagnosis: Grain overload.

Case Number 11: 634644

Seven year-old Holstein Cow, Four months pregnant.

Alfalfa-brome hay free choice; 10 lbs rolled oats and 15% dairy pellets, off feed and bloated for one day; treated with detergent by farmer.

Examination on farm revealed moderate distention of left paralumbar fossa and slight distension on the right. Rumen motility—2/min., decreased intensity. Rectal—rumen very large and almost extending into pelvic cavity. Stomach tube passed—only slight relief of bloat. Administered D.O.S.S. CBC - dehydration; cow's condition did not improve, referred into the clinic.

Examination in clinic: distended abdomen, cow distressed, 8% dehydration, T - 38.7, P - 96, R - 24. Ruminant movements: visible - erratic; rapid and strong, weak on auscultation; no grunt on deep palpation of the xiphoid. Attempted to relieve the bloat with a large bore stomach tube (Kingman-tube). Trocharized the rumen—a large volume of froth escaped, administered 7 oz. Turcapsol p.o. and 20 mg Atropine I.M.

Cannula sutured in place. Rumencotomy performed following day. Rumen contents normal. Reticulum slightly adherent to the abdominal wall.

Next day, cow started eating, progressively improved.

Diagnosis: Bloat and Vagus Indigestion.

Case Number 12: 631297

Holstein Heifer, 10 months old.

Went off feed yesterday. Kicking at belly. Passed blood in feces last night. Alfalfa and brome hay and barley chop. Green feed available. Standing and walks normally. T - 39.1, HR - 96/min., rumen static. Normal hydration.

Rectal: distended viscus midline in pelvic cavity, blood-stained feces in rectum.

Peritoneal tap: free flow serosanguinous fluid, clotted in tube, slightly cloudy, RBC 0.1 x 10⁶; WBC 2.0 x 10³; S.G. 1.021; T.P. 31 g/dl; majority of cells are non-degenerate neutrophils, monocytes and macrophages.

Sodium - 140, Potassium - 4.4, Chloride - 98, Ca 7.5, P - 6.0 Mg - 2.5, WBC - 6.8, Neutro - 1904, Bands - 136, Eos - 204, Lymph - 4284, Mono - 272, Protein - 6.8, Fibrinogen - 1000.

Diagnosis: Intussusception of Small intestine.

Case Number 13: 637252

Holstein cow, two years of age, calved uneventfully five days ago. Did not know if cow cleaned normally. Two days after calving developed profuse

watery diarrhea and became anorexic. Treated with penicillin for two days, no response. Feed-native grass pasture, alfalfa pellets and rolled oats and barley.

Clinical Examination:

Day 1 - Temperature 38.5°C, heart rate 84/minute, respiratory rate 40/minute, standing, walks slowly as if weak. Dull and depressed. About 10% dehydrated. Feces voluminous, watery and green colored. Rumen static. Hollow tympanitic sounds audible on percussion over right flank. Rectal-uterus involuting, feces watery. Vaginal mucus—viscid and no abnormal odor. Mammary gland normal but CMT 3+ in RH & LH, no evidence of clinical mastitis.

Day 2 - Lactated Ringers 10 gal. all day. Cow hydrated but still not eating. Fluid diarrhea. Oxytetracycline I.V. daily - 3 days.

Day 3 - Temperature 38.5° C, P.R. 56, R.R. 36. Continued fluids. Fluid diarrhea. Rumen static.

Day 4 - Down and cannot get up. Depressed, head on floor. Continued lactated Ringers. Changed to Trivetrin.

Days 5-8 - Remained down diarrhea continued but not as severe. Still depressed, eating small amounts of hay and grain, hydration normal.

Diagnosis: Salmonellosis and muscular weakness due to K deficiency.

Case Number 14: 632248

- One month old Charolais heifer
- 30 head herd
- 5 cases of scours this spring
- calf has been fine until today
- found stretching, kicking at abdomen, rolling.

Examination: T - 39.2, P - 152, R - 42.

Diagnosis: Torsion of root of mesentery.

Case Number 15: 632300

- One month old Hereford heifer
- calf has been sucking cow and doing fine
- okay this morning - flat out at 3:00 p.m.
- Examination: T - 36.8, P - 150, R - 64.
- Calf in shock
- very pale mucous membranes.

Diagnosis: perforated abomasal ulcer.

