

## **Diseases of the intestine**

### **Acute intestinal obstruction**

#### **Definition:**

- Intestinal obstruction includes volvulus, intussusceptions and strangulation. The clinical signs include: acute abdominal pain, severe shock, absence of defecation and the dosage of blood and mucus.
- Volvulus: Is an acute obstruction of the bowels caused by twisting of a loop of bowel around itself.

#### **Etiology:**

- indigestion associated with severe colic is the most frequent cause.
- Violent movement and rolling or jumping and following struggling during casting in horses.
- Sudden or irregular increase in peristaltic movements of the intestine after dosing with parasympathetic stimulant as carbacol or colityl.
- Severe spasmodic colic.
- Heavy infestation of nodular worms (*Oesophagostomum columbianum*) in sheep or ascaris in all animals may cause intestinal obstruction.

#### **Clinical findings:**

- Severe continuous pain, preceded by signs of colic (History of violent exercise) pain is mild at first followed by anxiety and finally distress and delirium.
- Profuse sweating.
- Violent movements, pawing, kicking at the belly and ear drooping. From time to time the animal falls on the ground then slowly rises up again.

- 4- The animal may assume dog sitting.
- Congestion of the mucosa.
- lab breath-Pulse 50-70 at first then increases to 100/m and becomes poor in quality.
- Slight rise in temperature then suddenly falls (rising of temperature indicates bad prognosis).
- Anorexia for food and water is complete.
- Trembling is frequent.
- In torsion of the colon persistent bloating is the rule.
- Vomiting of retching type may occur (Especially in volvulus of small intestine).
- Bowel evacuation is suppressed.
- Peristalsis is absent.
- The course is from 8-24 hrs. terminating in death.

### **Rectal findings:**

- In torsion of the small intestine examination in the upper left part of the abdomen reveals:

1- Irregular tympany.

2- One may locate painful spot that when touched causes the animal to kick the belly.

3- Loops of small intestine may be found displaced to the right above the colon.

4- In cases of volvulus of ileum, a tense cord like twist of mesentery in the region of the left kidney is felt

5- Torsion of the colon leads to tympany.

6- Anterior to the pelvic rim you feel a cord like mass of colic vessels.

## **Treatment:**

No useful treatment. Even surgical attempts are useless.

- In the horse, manual reduction per rectum may be attempted when the large colon is affected and the twist is only partial.
- Try to give large doses of liquid paraffin or oil of turpentine or linseed oil in cases of partial torsion and in addition apply back racking and enema of soft soap and warm water.
- In complete torsion it is definitely useless.

## **Intestinal strangulation**

### **Intestinal incarceration**

It is the occlusion of the intestinal lumen by pressure from the outside. It occurs:

- When a loop of the intestine passes through a natural or artificial opening in the peritoneum and held there.
- The bowel may be strangulated by the long stem of a pedunculated tumor or by other fibrous cords or bands.
- In stallions, incarceration in the inguinal canal may take place due to inguinal hernia.
- In bovines, the most frequent locations are the peritoneal adhesions. A segment of the intestine may also sometimes pass through a slit in the diaphragm (diaphragmatic hernia).

- Rolling from colic seems to be a pre-disposing cause to such conditions.

Symptoms: The same as in torsion.

Treatment: as in torsion, but if there is hernia, early operation may be necessary.

### **Invagination (Intussusceptions)**

- This is a form of acute intestinal obstruction caused by the telescoping Invagination of a section of the bowel into a portion immediately behind it. The affected part forms a sausage shaped, firm and painful swelling composed of 3 segments an outer, a middle and an innermost layer. It occurs mostly in dogs and cattle. The more common seat is the ileocaecal junction (as the ileum is always invaginated into the caecum or the colon).

#### **Etiology:**

- 1- Irregular and violent intestinal peristaltic movement.
- 2- Tumors in the lumen of the bowel.
- 3- Severe enteritis particularly in young animals.

#### **Symptoms:**

- 1- Commences as a rule with subacute abdominal pain which rapidly becomes acute and resembles those of torsion.
- 2- The faeces may be passed tinged with blood.
- 3- Complete anorexia.
- 4- Pulse 80-100/m.
- 5- Breathing is shallow & irregular.

6- Bowel evacuation is suppressed.

### **Diagnosis:**

- 1- Rectal palpation reveals a firm painless circumscribed swelling just anterior to the tip of the pelvis in the right flank.
- 2- X-ray is a good diagnostic means specially in dogs.

### **Treatment:**

- 1- As in torsion begin the treatment by giving large doses of liquid paraffin orally and give sedatives.
- 2- Surgical interference may be tried as quick as possible.

### **Verminous aneurysm:**

- Migration of the larvae of strongylus spp. worms into the wall of the cranial mesenteric artery and its branches occurs in horses which may cause restriction of the blood supply to the intestine, so it should be differentiated from intestinal obstruction which is accompanied by tympany