

CLINICAL REVIEW OF INTESTINAL OBSTRUCTION IN CATTLE

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INTRODUCTION:

Several conditions may lead to obstruction of the flow of ingesta through the intestinal tract (2,6). Mechanical accidents such as intussusception, volvulus, and strangulation, in which there is a physical occlusion of the intestinal lumen (1,2,4,6). Functional obstructions, such as those which occur with local or general paralytic ileus may mimic mechanical problems. (2,4,6). Congenital malformations may include atresia or constriction of portions of the gut and has been reported in calves and lambs (2,4,6). Compression stenosis by blood clot from an expressed corpus luteum site on an ovary, or traumatic duodenitis caused by migration of a metallic foreign body (2,5)

Intestinal carcinoma occurs very rarely in cattle (6). External pressure by mesenteric fat necrosis is a condition of cattle in all dairy breeds (2,6). Luminal blockages occurs by phytobezoars, and trichobezoars (2,3). The clinical signs of these conditions include a reduction in the amount or a failure to pass feces, progressive abdominal enlargement and colic (2,6).

Experimental design:

In 1980 it was decided to collect all the information about cases of intestinal obstruction and process them as etiological and statistical point of view.

Through 1980-1990 (a period of 10 years) totally we received 12 cases of intestinal obstruction in our large animal clinic of veterinary school, Tehran University. Clinical symptoms of these animals were included as anorexia, complete cease of defecation in some cases and in some others very small amount of feces was observed, in other cases bloat and milk reduction were observed.

In one case a 4 year old dairy cow we observed following symptoms:

Rectal temperature of 39.5 °C, cachexia, extreme pain in percussion of pectoral and abdominal cavities. Complete lack of defecation existed and in rectal examination, rectum was completely empty while fetid and blood mucus was observed.

Tests were positive for foreign body. C.B.C showed increase in neutrophils and left shift considering the above symptoms diagnosis was intestinal obstruction and this animal was sent to surgery department for operation. In laparotomy diagnosis was confirmed. Foreign body had penetrated through reticulum towards left side of the abdominal cavity causing peritonitis and extreme adhesion and duodenitis was had caused intestinal obstruction of duodenum. Because of spread peritonitis treatment were not beneficial and animal was wasted. In another case a 5 year old dairy cow in spring was brought to our clinic, symptoms included, complete lack of defecation, anorexia and milk reduction. In clinical examination we found, normal temperature, tests for foreign body and C.B.C were normal, but in rectal examination, rectum was completely empty and large amount of fetid mucus existed. With considering the above symptoms we were suspicious to intestinal obstruction, to confirm our diagnosis and also treatment of the animal we sent it to surgery department. At the time of surgery a big hair ball (trichobezoar) was discovered in the region of the jejunum which had caused a complete obstruction of the intestine. The hair ball was removed surgically and animal was under antibiotic and fluid therapy and completely recovered.

10 other cases were diagnosed for fat necrosis in our hospital. All these animals were dairy cows, ages were between 4-9 years old. Owners complained from chronic bloat and abdominal distension, reduction of defecation and milk yield reduction. In clinical examination rectal temperature was normal and abdominal distension was mostly on the left side, bloat was observed in different degrees.

In rectal examination in all cases rectum had a little feces and masses of fat necrosis were palpable. In some cases these masses were so voluminous which we couldn't enter out arms inside the rectum. C.B.C results were normal. By considering the results of rectal examination disease was diagnosed as fat necrosis, to confirm the diagnosis in all cases we did make exploratory laparotomy and diagnosis were all confirmed. Animals were sent to slaughter house.

Results

Out of 12 cases of intestinal obstruction in cows which were referred to the teaching hospital of Tehran Veterinary School, University of Tehran through 10 years (1980-1990), most cases (10 cases) or 83.3% were diagnosed as fat necrosis. Intestinal obstruction due to hair ball and obstruction because of adhesion of duodenum by foreign body were least happened (each one case) in other words 8.3% of all cases.

Conclusions:

By considering the clinical symptoms it should be mentioned that obstruction due to foreign body and duodenal adhesion had the clinical symptoms of severe and acute colic, and emptiness of rectum and fetid mucus with streaks of blood on the glove of rectal examination were noticed. Also general condition of the animal was critical. Tests for foreign body were positive and C.B.C results showed neutrophilia with shift to the left.

Due to jejunum obstruction because of hair ball, symptoms were mild. Painful abdomen in percussion didn't exist, but in rectal examination rectum was completely vacant and a lot of mucus on the glove was observed which was not bloody.

While in all cases of fat necrosis duration of disease was chronic and there was no painful abdomen, but distension of abdominal cavity and bloat existed in all of these cases. In rectal examination slight amount of feces was observed, but hard masses of fat necrosis with different sizes were palpated.

It should also be mentioned that in fat necrosis clinical diagnosis through rectal examination in almost all cases is possible. Also it should be mentioned that in trichobezoar cases, in early diagnosis and early surgery, prognosis is good, but in duodenal adhesions due to foreign body prognosis is not that good and in fat necrosis prognosis is grave.

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