Using radiology and ultrasonography imaging techniques to find gastric and intestinal obstructions

Database: CAB Abstracts <1990 to 2013 Week 37>
Search Strategy:
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1 "foreign bod**".mp. [mp=abstract, title, original title, broad terms, heading words] (2765)
2 obstruct*.mp. [mp=abstract, title, original title, broad terms, heading words] (9898)
3 (intestin* or gastric or stomach).mp. [mp=abstract, title, original title, broad terms, heading words] (109437)
4 (imaging or radiograph*).mp. or "sonograph*/ [mp=abstract, title, original title, broad terms, heading words] (37816)
5 1 and 2 and 3 and 4 (70)
7 from 5 keep 1-5,12-13,15,23,28-30,40-44,46-47,49,51-52,58,64 (24)

Accession Number
20133245312
Author
Banzato, T.; Hellebuyck, T.; Caelenberg, A. van; Saunders, J. H.; Zotti, A.
Title
A review of diagnostic imaging of snakes and lizards.
Source
Veterinary Record; 2013. 173(2):43-49. many ref.
Publisher
BMJ Publishing Group
Location of Publisher
London
Country of Publication
UK
Abstract
Snakes and lizards are considered 'stoic' animals and often show only non-specific signs of illness. Consequently, diagnostic imaging - along with clinical examination and laboratory tests - is gaining importance in making a final diagnosis and establishing a correct therapy. The large number of captive snake and lizard species commonly kept as pets, together with the high inter- and intraspecific morphological variability that is innate in these animals, make the analysis of diagnostic images challenging for the veterinary practitioner. Moreover, a thorough knowledge of the anatomy, physiology and pathology of the species that are the object of clinical investigation is mandatory for the correct interpretation of diagnostic images. Despite the large amount of clinical and scientific work carried out in the past two decades, the radiographic features of snakes and lizards have not undergone systematic description, and therefore veterinarians often have to rely mostly on anatomical studies rather than radiological literature. The aim of this paper is to review the most commonly used diagnostic imaging modalities, as well as to provide an overview of the available international original studies and scientific reviews describing the normal and pathological imaging features in snakes and lizards.

Accession Number
20133253407
Author
Diagnosis and management of intestinal partial obstruction in a loggerhead turtle (Caretta caretta).

A loggerhead sea turtle (Caretta caretta) was suspected of ingesting rubber suction cups during rehabilitation following a cold-stun event. Survey radiographs were inconclusive. Computed tomography (CT) was performed to determine whether the objects had been ingested after traditional radiographs failed to resolve the material. The items were identified, and a partial obstruction was diagnosed. The case was managed with medical therapy using white petrolatum and light mineral oil administered to the turtle in fish for 3 wk. The CT exam was repeated 2 wk into the therapy. A persistent partial obstruction was identified; however, progression of the foreign objects through the intestinal tract was evident and continued medical management was deemed appropriate. The foreign bodies were passed with feces 26 days after ingestion.

Polyurethane adhesive ingestion.

Polyurethane adhesives are found in a large number of household products in the United States and are used for a variety of purposes. Several brands of these expanding wood glues (those containing diphenylmethane diisocyanate [MDI]) have the potential to form gastrointestinal (GI) foreign bodies if ingested. The ingested adhesive forms an expanding ball of glue in the esophagus and gastric lumen. This expansion is caused by a polymerization reaction using the heat, water, and gastric acids of the stomach. A firm mass is created that can be 4-8 times its original volume. As little as 2 oz of glue have been reported to develop gastric foreign bodies. The obstructive mass is reported to form within minutes of ingestion of the adhesive. The foreign body can lead to esophageal impaction and obstruction, airway obstruction, gastric outflow obstruction, mucosal hemorrhage, ulceration, laceration, perforation of the esophageal and gastric linings, and death. Clinical signs following ingestion include anorexia, lethargy, vomiting, tachypnea, and abdominal distention and pain, and typically develop within 12 hours. Clinical signs may depend upon the size of the mass. If left untreated, perforation and rupture of the esophagus or stomach can occur. The glue mass does not stick to the GI mucosa and is not always detectable on abdominal palpation. Radiographs are recommended to confirm the presence of the "glue-ball" foreign body, and radiographic evidence of the obstruction may be seen as early as 4-6 hours following ingestion. Emesis is contraindicated owing to the risk of aspiration of the glue into the respiratory tree or the subsequent lodging of the expanding glue mass in the esophagus. Likewise, efforts to dilute the glue and prevent the formation of the foreign body through administration of liquids, activated charcoal, or bulk-forming products to push the foreign body through the GI tract have proven ineffective. Even endoscopy performed to remove the foreign body has been shown to be unreliable. The safest, most effective, and successful
Therapy is surgical intervention to remove the GI foreign body. If performed early enough, complete recovery of the animal can be expected. Differential diagnoses for polyurethane adhesive ingestion include any potential cause of GI obstruction. The public is largely unaware of the hazards that ingestion of this product may produce. Public education efforts are needed to inform pet owners about the hazards of these glues and the overall importance of providing our companion animals with safe, poison-free environments.

Accession Number
20133237681
Author
Day, J. L.; Pechman, R. D.
Title
Review of the radiographic signs of intestinal obstruction.
Source
Australian Veterinary Practitioner; 2013. 43(2):430, 432-440. 12 ref.
Publisher
Australian Small Animal Veterinary Association
Location of Publisher
St. Leonards
Country of Publication
Australia
Abstract
The width of the small intestine is the most useful radiographic indicator of small intestinal obstruction. In dogs, a ratio of the small intestine width to the height of the fifth lumbar vertebral body that is greater than 1.6-2.0 is supportive of a diagnosis of mechanical small intestine obstruction. In cats, small intestinal diameter greater than 12 mm indicates dilation. Other signs of small intestinal obstruction are abnormal gas opacities (which may indicate a linear foreign body or intussusception), 'gravel sign' (accumulation of granular material in the small intestine indicating partial obstruction), and the presence of a foreign body. History and clinical findings are essential in the diagnosis of a functional ileus and partial small intestinal obstruction. If there is doubt about the diagnosis, then repeat radiography in 12-24 hours, ultrasound, or gastrointestinal contrast studies may be indicated. Justification for exploratory coeliotomy requires combining historical and clinical findings in light of results of diagnostic imaging. In the absence of a foreign body or obvious pathology at coeliotomy, biopsies are indicated.

Accession Number
20133192955
Author
Ciasca, T. C.; David, F. H.; Lamb, C. R.
Title
Does measurement of small intestinal diameter increase diagnostic accuracy of radiography in dogs with suspected intestinal obstruction?
Source
Veterinary Radiology & Ultrasound; 2013. 54(3):207-211. 21 ref.
Publisher
Wiley-Blackwell
Location of Publisher
Oxford
Country of Publication
UK
Abstract
The ratio between maximal small intestinal (SI) diameter and the height of the body of the fifth lumbar vertebra (L5) in radiographs has been reported as a diagnostic test in dogs with suspected intestinal obstruction. In order to assess the effect of the SI/L5 ratio on the accuracy of radiographic diagnosis of
intestinal obstruction, lateral abdominal radiographs of 37 dogs with small intestinal obstruction and 48 nonobstructed dogs were mixed and examined independently by six observers who were unaware of the final diagnosis and who represented a range of experience. Observers first examined radiographs subjectively and stated the likelihood of obstruction (definitely not, probably not, equivocal, probably, definitely). Observers subsequently reexamined the radiographs, determined the SI/L5 ratio, and again stated the likelihood of obstruction. The most frequent cause of obstruction was foreign body (29/37, 78%). Dogs with SI obstruction had a significantly larger median SI/L5 ratio than nonobstructed dogs (P=0.0002). Using an SI/L5 ratio of 1.7 for diagnosis of intestinal obstruction, sensitivity and specificity were 66%. Use of the SI/L5 ratio was not associated with increased accuracy of diagnosis for any observer, regardless of experience, hence this test may have no diagnostic impact.

Accession Number
20123280948
Title
Radiography and ultrasonography for the diagnosis of intestinal obstruction.
Source
Publisher
Elsevier Inc.
Location of Publisher
Philadelphia
Country of Publication
USA

Accession Number
20123234819
Author
Tharwat, M.; Al-Sobayil, F.; Ali, A.; Buczinski, S.
Title
Ultrasonographic evaluation of abdominal distension in 52 camels (Camelus dromedarius).
Source
Publisher
Elsevier Ltd
Location of Publisher
Oxford
Country of Publication
UK
Abstract
The purpose of this study was to assess the diagnostic value of ultrasonography in the evaluation of abdominal distension in 52 camels (Camelus dromedarius). The conditions included trypanosomiasis (n=35), intestinal obstruction (n=12) and ruptured urinary bladder (n=5). Fifteen clinically normal camels were included as controls. Transabdominal and transrectal ultrasonography was carried out on all camels. In animals with trypanosomiasis, ultrasonographic findings included accumulation of massive amounts of hypoechoic abdominal fluids where liver, intestine, kidney, spleen and urinary bladder were imaged floating. Except in two cases of bile duct calcification and one of hepatic abscessation, no detectable abnormal sonographic lesions were detected while imaging the hepatic and renal parenchyma, and the heart and its valves and major blood vessels. In camels with intestinal obstruction, ultrasonographic findings included distended intestinal loops with markedly reduced or absent motility. In one camel, the intestinal lumen contained localised hyperechoic material that was consistent with a foreign body. Hypoechoic fluid with or without fibrin was seen between intestinal loops. In camels with ruptured urinary bladder, ultrasonographic findings included collapsed and
perforated bladder, echogenic blood clots within the urinary bladder and peritoneal cavity, increased thickness of the bladder wall, floating intestines in hypoechoic fluid and echogenic calculi within the urethra. Ultrasonography was considered a useful tool for the evaluation of dromedary camels with abdominal distension.

Accession Number
20113203859
Author
Sharma, A.; Thompson, M. S.; Scrivani, P. V.; Dykes, N. L.; Yeager, A. E.; Freer, S. R.; Erb, H. N.
Title
Comparison of radiography and ultrasonography for diagnosing small-intestinal mechanical obstruction in vomiting dogs.
Source
Publisher
Wiley-Blackwell
Location of Publisher
Oxford
Country of Publication
UK
Abstract
A cross-sectional study was performed on acutely vomiting dogs to compare the accuracy of radiography and ultrasonography for the diagnosis of small-intestinal mechanical obstruction and to describe several radiographic and ultrasonographic signs to identify their contribution to the final diagnosis. The sample population consisted of 82 adult dogs and small-intestinal obstruction by foreign body was confirmed in 27/82 (33%) dogs by surgery or necropsy. Radiography produced a definitive result (obstructed or not obstructed) in 58/82 (70%) of dogs; ultrasonography produced a definitive result in 80/82 (97%) of dogs. On radiographs, a diagnosis of obstruction was based on detection of segmental small-intestinal dilatation, plication, or detection of a foreign body. Approximately 30% (8/27) of obstructed dogs did not have radiographic signs of segmental small-intestinal dilatation, of which 50% (4/8) were due to linear foreign bodies. The ultrasonographic diagnosis of small-intestinal obstruction was based on detection of an obstructive lesion, sonographic signs of plication or segmental, small-intestinal dilatation. The ultrasonographic presence or absence of moderate-to-severe intestinal diameter enlargement (due to lumen dilatation) of the jejunum (>1.5 cm) was a useful discriminatory finding and, when present, should prompt a thorough search for a cause of small-intestinal obstruction. In conclusion, both abdominal radiography and abdominal ultrasonography are accurate for diagnosing small-intestinal obstruction in vomiting dogs and either may be used depending on availability and examiner choice. Abdominal ultrasonography had greater accuracy, fewer equivocal results and provided greater diagnostic confidence compared with radiography.

Accession Number
20113025067
Author
Title
Retrospective analysis of 74 horses with disorders of the oesophagus. [German]
Source
Pferdeheilkunde; 2011. 27(1):15-25. 15 ref.
Publisher
Hippiatrika Verlagsgesellschaft mbH
Location of Publisher
Stuttgart
Country of Publication
Germany

Abstract
74 cases of horses which had been admitted to the Department of Large Animal Internal Medicine between 2000 and the beginning of 2010, have been analyzed retrospectively. Five of these horses are described in detail. A primary obstruction of the esophagus was diagnosed in 60 horses. The diagnosis based on the inability to pass a nasogastric tube and the treatment of choice was the esophageal lavage technique. Other diseases were esophageal dysfunction without any morphological changes, esophageal diverticula, hypertrophy of the esophageal musculature following a chronic dilatation of the stomach, distinctive ulceration of the esophagus, esophagitis because of reflux, esophageal perforation and megaesophagus. Diagnostic was made by endoscopy and radiology (with or without contrast medium). In four horses, the esophageal obstruction was removed at the time of admission in the large animal hospital. The most common localisation of obstruction was the thoracic inlet. The gullets were obstipated with beet pulp, hay or straw, pellets or beets. All horses with primary esophageal obstruction could be cured and discharged. In two cases with diverticula of the esophagus, a surgical therapy was not possible due to the localisation. Based on the poor prognosis, horses A and B were euthanized as well as horse C with chronic dilatation of the stomach, one stallion with a perforation of the esophagus (horse E) and one mare (horse F) with high grade esophagitis. Necropsy of horse A revealed a false diverticulum (1 1.5x11.0x8.5 cm) of Pars abdominals of the esophagus. This outpouching contained 560 g of compact plant-derived material. Horse B showed a false diverticulum of Pars thoracica of the esophagus (length: 18 cm, maximum circumference: 32.5 cm). Cardia and Pars proventricularis were obstructed with a firm and dry conglomerate of wood shavings. Besides gastric alterations consistent with chronic dilatation of the stomach, horse C also exhibited chronic changes of the rear part of the esophagus: interstitial fibrosis in conjunction with muscular degeneration and hypertrophy, respectively. Regarding horse E, two complete transections could be detected 19 and 35 cm behind the epiglottis. Tissue surrounding esophagus was characterized by a severe chronic-active purulent and necrotizing inflammation, which extended to the diverticula tubae auditivae. One mare (horse D) with a high-grade ulcerative primary esophagitis has been treated with omeprazol, prednisolone, amoxicillin and gentamicin. After three weeks of treatment with omeprazol and prednisolone, endoscopy showed that the esophagitis had been cured almost completely. The horse was released from the clinic with a good prognosis. If recurrent esophageal obstructions occur in adult horses, esophageal diverticula have to be considered as one differential diagnosis. Regarding the two described cases, the morphological alterations have to be classified as pulsion diverticula (false diverticula). In contrast to morphological and functional alterations, primary esophageal obstructions are a common disease in horses and in most cases they can be cured in a short time without any complications. Other diseases of the esophagus are mostly severe and hard to treat, so prophylaxis is very important.

<10>
Accession Number
20103214770

Author
Buker, M.; Foldenauer, U.; Simova-Curd, S.; Martig, S.; Hatt, J. M.

Title
Gastrointestinal obstruction caused by a radiolucent foreign body in a green iguana (Iguana iguana).

Source
Canadian Veterinary Journal; 2010. 51(5):511-514. 22 ref.

Publisher
Canadian Veterinary Medical Association

Location of Publisher
Ottawa

Country of Publication
Canada

Abstract
This report describes an intestinal obstruction in a green iguana (Iguana iguana). The patient was presented with vomiting and subtle signs of abdominal pain. Radiographs and ultrasound imaging did
not reveal any abnormalities. A coeliotomy was performed and a 30-cm piece of absorbent cotton was removed surgically from the large intestine.

Objective - To compare the radiographic appearance of small and large intestines of cats with various medical conditions and create a quantitative index for interpretation of intestinal diameters on radiographic views of the abdomen. Design - Retrospective cohort study. Animals - 74 cats that underwent abdominal radiography. Procedures - Cats were assigned to 1 of 4 diagnosis categories: no gastrointestinal tract disease (n=20), nonobstructive gastrointestinal tract disease (32), linear foreign body (LFB; 11), and small intestinal mechanical obstruction not caused by an LFB (11). Abdominal radiographs were evaluated without knowledge of history or diagnosis. Maximum and minimum external small intestine diameter (SID) and colon diameter (CD) were compared; dorsoventral and mediolateral measurements of the cranial end plate of L2 (VEL2) and L5 vertebrae were compared. Dorsoventral height of VEL2 from lateral radiographic views was used to determine maximum-SID:VEL2 and maximum-CD:VEL2 ratios. Gas patterns were evaluated. Results - Nonobstructive gastrointestinal tract disease was more likely than obstruction until a maximum-SID:VEL2 ratio >2.0. At a maximum-SID:VEL2 ratio of 2.5, probability of a disease not related to the intestinal tract was <4%. At a maximum-SID:VEL2 ratio of 3.0, probability of a mechanical intestinal obstruction was >70%. When the maximum-CD:VEL2 ratio was 2.0, probability of LFB was 50%; as the maximum-CD:VEL2 ratio increased beyond 2.0, likelihood of LFB decreased. Both gas pattern and CD correlated with diagnosis category. Conclusions and Clinical Relevance - Normalizing ratios of maximum-SID:VEL2 and maximum-CD:VEL2 obtained from measurements on lateral radiographic views of the abdomen in cats were related to diagnosis category.
Intestinal obstruction resulting from an intramural foreign body-associated pyogranuloma was diagnosed in four dogs. Vomiting and weight loss were the main clinical signs. On physical examination, a mass in the abdomen was detected in three dogs. Abdominal radiography demonstrated the presence of soft tissue opacity in three of the dogs and gas-filled dilated intestinal loops in all four dogs. Abdominal ultrasonography showed hyperkinetic fluid-filled dilated intestinal loops and a hypoechoic small intestinal mass in all the dogs. Exploratory coeliotomy confirmed the presence of a jejunal mass, which was removed by resection and anastomosis in all the dogs. In one of the dogs a linear foreign body was also found cranial to the mass and was removed through a separate enterotomy incision. The lesions were diagnosed as foreign body-associated intestinal pyogranulomas on histological examination. Three dogs recovered without complications, but the fourth showed signs of septic peritonitis four days after surgery and was euthanased at the owner’s request. The other three dogs remained disease-free 12 to 42 months after surgery.

Accession Number
20073215447
Author
Harcourt-Brown, F. M.
Title
Gastric dilation and intestinal obstruction in 76 rabbits.
Source
Publisher
British Veterinary Association
Location of Publisher
London
Country of Publication
UK
Abstract
Eighty-four incidents of gastric dilation (bloat) were investigated in 76 pet rabbits, and an intestinal obstruction was confirmed in 64 of them. In 49 the obstruction was due to pellets of compressed hair, in four to locust bean seeds, in five to neoplasia, in two to postspay adhesions, and in one case each to carpet fibre, tapeworm cysts, a strangulated hernia and diverticulosis. In all but four cases, the obstruction was in the small intestine. The condition affected a variety of breeds fed on a variety of diets. Radiography was a useful diagnostic tool because gas and/or fluid in the digestive tract outlined the dilated stomach and intestines. Twenty-nine of the rabbits died or were euthanased without treatment, and 40 underwent exploratory surgery; of these, 10 died during surgery, three were euthanased because of intestinal neoplasia, eight died postoperatively and 19 recovered. Fifteen rabbits in which radiography indicated that a foreign body had passed out of the small intestine did not undergo surgery; of these, 13 recovered and two died.

Accession Number
20073119603
Author
Leib, M. S.
Title
Diagnostic approach to chronic vomiting.
Source
Publisher
The North American Veterinary Conference
Location of Publisher
Gainesville
Country of Publication
USA
Accession Number
20063240647
Author
Lamb, C. R.
Title
Recognizing intestinal foreign bodies.
Source
Publisher
The North American Veterinary Conference
Location of Publisher
Gainesville
Country of Publication
USA

Accession Number
20063146035
Author
Tyrrell, D.; Beck, C.
Title
Survey of the use of radiography vs. Ultrasonography in the investigation of gastrointestinal foreign bodies in small animals.
Source
Veterinary Radiology & Ultrasound; 2006. 47(4):404-408. 24 ref.
Publisher
Blackwell Publishing
Location of Publisher
Boston
Country of Publication
USA
Abstract
A question frequently asked by clinicians who are treating small animals suspected of having gastrointestinal foreign bodies is whether one imaging test such as survey radiography or ultrasonography is sufficient to make the diagnosis. A study was undertaken to try and answer this question. Survey abdominal radiography and ultrasonography was performed on 16 small animals (11 dogs, five cats) with clinical signs of an obstruction because of a confirmed gastrointestinal foreign body. The majority of the foreign bodies (14/16) were confirmed by surgical removal and were located in the small intestine. A gastric foreign body was retrieved endoscopically and a colonic foreign body was passed in the feces. Radiographically identifiable foreign bodies were evident in nine animals. Small intestinal overdistension was present radiographically in seven animals. Ultrasonography detected a foreign body in all 16 animals. The foreign bodies were identified by their distal acoustic shadowing and variable degrees of surface reflection. An intestinal perforation was detected sonographically but not radiographically. The value of additional sonographic findings including thickening of the gastrointestinal wall and loss of layering, free peritoneal fluid, and lymphadenopathy in these animals is discussed. The findings in this series suggest that in a small animal with a gastrointestinal foreign body, ultrasonography alone could be used to make the diagnosis and may be a more appropriate choice than survey radiography.
Bello, A. di; Valastro, C.; Staffieri, F.; Crovace, A.
Title
Contrast radiography of the gastrointestinal tract in sea turtles.
Source
Publisher
Blackwell Publishing
Location of Publisher
Boston
Country of Publication
USA
Abstract
Intestinal obstruction by radiolucent foreign bodies is common in sea turtles. The absence of clinical signs and the extended fasting periods in these animals means that intestinal obstructions may not be diagnosed early. Digestive tract radiographic contrast procedures were performed to evaluate the gastrointestinal transit time and intestinal obstructions in loggerhead sea turtles. Barium sulfate and nonionic iodinate contrast medium were used for radiographic contrast procedures. Contrast medium was administered via a gastric tube or into the colon. These procedures are often necessary and are useful to document intestinal obstruction and foreign objects. The diagnostic procedures were not easily performed in some turtles, but often they were adequate for the diagnosis.

<18>
Accession Number
20063004971
Author
Sullivan, E. K.; Callan, R. J.; Holt, T. N.; Metre, D. C. van
Title
Trichophytobezoar duodenal obstruction in New World camelids.
Source
Publisher
Blackwell Publishing
Location of Publisher
Boston
Country of Publication
USA
Abstract
Objective - To describe clinical findings, surgical treatment, and outcome associated with trichophytobezoar duodenal obstruction in New World camelids. Study Design - Retrospective study. Animals - Alpacas (7) and 1 llama. Methods - Historical and clinical data were obtained from the medical records of New World camelids with a diagnosis of trichophytobezoar duodenal obstruction confirmed by surgical exploration or necropsy. Results - Seven camelids were <1 year old. Abnormal clinical findings included anorexia, reduced fecal output, recumbency, colic, abdominal distension, regurgitation, decreased serum chloride concentration, increased serum bicarbonate concentration, and/or elevated first gastric compartment chloride concentration. Survey abdominal radiographs obtained (4 animals) revealed gastric distension (4) and/or visualization of the obstruction (2). Diagnosis was confirmed at necropsy (1) or surgery (7). Right paracostal celiotomy was performed on all animals and duodenotomy (3) or retropulsion of the trichophytobezoar combined with third compartment gastrotomy (4) was used to remove the obstruction. Six animals survived to discharge and 5 were healthy at follow-up, 8-20 months later. The remaining discharged alpaca was healthy at 12 months but subsequently died of unrelated causes. Conclusions - Diagnosis of trichophytobezoar duodenal obstruction should be considered in juvenile New World camelids with abdominal distension and hypochloremic metabolic alkalosis. Right paracostal celiotomy can be used for access to the descending duodenum and third gastric compartment for surgical relief of obstruction. Clinical Relevance - Duodenal obstruction from bezoars should be considered in New World camelids <1 year of age with abdominal distension and hypochloremic metabolic alkalosis. Surgical relief of the obstruction by right paracostal celiotomy has a good prognosis.
A four-year-old male green iguana (Iguana iguana) was presented to the University Veterinary Hospital (UVH) of University Patra Malaysia with a history of marked reduction in activity and appetite. A solid mass was palpated at right lateral abdomen. The mass was investigated with radiography, ultrasonography and followed by exploratory laparotomy. A 2 centimeter diameter of yellowish mass with the consistency of a boiled egg yolk was found adhering to the gastric mucosa distal to the pylorus down to the duodenum. The mass was surgically removed and histopathological findings revealed an old organized blood clot. The final diagnosis was gastrointestinal foreign body obstruction due to blood clot.
Abstract
A total of 53 and 66 dogs with and without small intestinal obstruction, respectively, were included into the study to determine the diagnostic yield of plain radiography for the diagnosis of intestinal obstruction compiling all radiological signs. Plain radiographs were examined by specialists in radiology, surgery and internal medicine and the differences in the evaluation by individual specialists were not statistically significant. Accuracy, sensitivity and specificity of plain radiographs in the diagnostics of small intestinal obstruction varied from 80.7, 76.8 and 88.2% to 89.1, 87.0 and 90.8%, respectively. When a radiologist determined the diagnosis to be final, accuracy and the predictive value of the final positive radiological diagnosis rose up to 96.9 and 100%, respectively. Plain radiography resulted in a high diagnostic yield in cases of simple intraluminal obstruction by a foreign body (75 to 80% of correct diagnoses) and intestinal obstruction (80 to 85%). The diagnostic yield in other causes of intestinal obstruction (linear foreign bodies, invagination, adhesions or strictures) was lower and depended mostly on the experience of the evaluating specialist. Plain radiography resulted in a correct diagnosis only in a few cases of diseases not causing small intestinal obstruction such as gastroenteritis, parvovirus, pancreatitis and renal failure. Plain radiography, nevertheless, is of great importance for ruling out small intestinal obstruction, because it has a predictive value of negative results in 80.3 to 90.9% of cases. Considering the obtained results, we can recommend plain radiography as a simple primary diagnostic imaging method of intestinal obstruction.