Care of the patient in acute surgical conditions

Acute abdominal surgical diseases, referred to as "**acute abdomen" ,** are abdominal diseases manifesting suddenly, a rapid course, requiring intensive diagnosis and urgent treatment, not infrequently emergency surgery. Some cases involve a chronic condition of the organ in question, while others involve a hitherto completely healthy organ.

Patients should be hospitalized, subjected to in-depth observation . From statistics medical shows that at least 50 percent of emergency admissions suffer from acute abdomen.

Acute pain can be either somatic or visceral. In both cases, it involves the peritoneum; somatic involves the mural peritoneum; visceral, the visceral peritoneum.

Somatic pain - is well confined , as far as the affected area is concerned, often referred to as a knife blow.

Visceral pain-is of a dull nature, originating deep in the abdomen, limited to the area of the affected organ. If involving the intestines, liver, biliary tract, pancreas, is located in the midline of the body, originatingcolon is located lower abdomen.

Such a division in the acute abdomen is quite practical, but it should be remembered that it can have a mixed character, which occurs in appendicitis.

Two mechanisms are responsible for acute abdominal pain: inflammatory and obstruction. The inflammation is caused by infectious agent such as bacteria, viruses, fungi, parasites, or non-infectious i.e. immune mechanisms, ionizing radiation, heat, cold, ischemia. The sequelae of inflammation can vary and depend on a number of factors, including the age of the patient, the organ subtracted by the inflammation, the duration of the ailment, and

Disturbing symptoms that may raise suspicion of an acute condition:

- nausea and vomiting
- sudden severe abdominal pain
- Pain that worsens with coughing and movement of the patient
- retention of gas and stool
- muscular defense
- increased pressure soreness
- tachycardia

Acute abdominal conditions include:

- Upper and lower gastrointestinal bleeding
- Gastrointestinal obstruction
- Acute pancreatitis
- Acute appendicitis

Upper and lower gastrointestinal bleeding

Depending on the location of the bleeding, it will involve the upper part of the or lower gastrointestinal tract.

The most common cause is :

- Ulcers of the stomach or duodenum (this is 50% of the bleeding that occurs)
- Hemorrhagic gastritis (10-20% of bleeding)
- esophageal varices (10%)
- and Mellory Weiss' team
- cancers,
- hemangiomas,
- Hernias of the esophageal hiatus and diverticula.

Bleeding in peptic ulcer disease of the stomach and duodenum occurs from damage and opening of blood vessels, due to peptic ulcer of the duodenum, 2-3 times more often than from the stomach.

Hemorrhagic gastritis presents as multiple petechial vivid red, several millimeter flat erosions. They are a consequence of excessive
consumption of alcohol, excessive intake of non-steroidal anti-inflammatory drugs, or as a result of severe post-traumatic stress.

Mallory Weiss syndrome is a longitudinal rupture of the gullet mucosa, formed on the
The result of sudden, violent vomiting.

Esophageal varices most often follow cirrhosis and result from portal hypertension. Varices occur rapidly, leading to hemorrhagic shock.

Clinical manifestations, stating the source of the bleeding:

- bloody vomiting
- foul-smelling vomit
- tarry stools
- Pallor of the skin coverings, with profuse sweating accompanied by fainting and anxiety
- tarry stools
- Vital parameters variable according to intensity bleeding, can take on shock values, cyli low pressure, faint rapid pulse, accelerated breathing
- Taking a history from the patient or family about medications taken, diet that may cause stool stains to change, addictions past gastrointestinal illnesses such as, hepatitis B and C, hemorrhagic diathesis, severe trauma, whether there was previous bleeding.

Treatment:

- Stopping the bleeding factor using an endoscope coagulation with argan plasma, laser photocoagulation, thermocoagulation, inserting clips, injecting the bleeding vessel with a drug
- Compensating for the hemodynamic disturbance that caused the bleeding
- administration of drugs that reduce gastric juice secretion and neutralizers
- in case of bleeding due to esophageal varices, administration of vasopressin to reduce pressure in the portal vein
- Persistent bleeding is an indication for surgery involving suturing of the bleeding section or partial resection.
- Persistent bleeding from esophageal varices is an indication for the insertion of a Sengstaken probe. Sometimes it is possible to endoscopically
  perform sclerotherapy, that is, inject an obliterating agent into the lumen The varicose vein or perivascularly. Another method is the placement of

Nursing care :

- good communication with the patient
- provide security, mental peace and physical
- semi-erect position, when the patient loses consciousness additionally lift the lower limbs upwards
- Informing the patient of the advisability and necessity of tests and treatments performed
- blood draw important tests such as blood count, blood type determination, electrolytes, bleeding and clotting time
- Reservation of Red Blood Cell Concentrate in the amount of co. 6 j minimum.
- Placement of peripheral insertion, IV fluid supply, medicines according to the kzl
- Establishment of observation card , monitoring, control of vital signs

- Insertion of urinary catheter, control of diuresis, management of fluid balance
- Strict diet, strictly stsed, prevention of choking
- Preparation for endoscopic examinations, obtaining consent patient
- If there is shortness of breath, oxygen therapy, exercise restriction physical
- Pain therapy, pain assessment using the NRS scale or VAS
- ensuring that the sick person is quiet and calm
- supplementation of electrolyte deficiencies
- Observation of vomiting in terms of quality and quantity

informing the doctor about all worrying symptoms

Intestinal obstruction-ileus, is a condition in which the intestinal contents are inhibited, thus the passage of intestinal contents is impossible. If the cause is mechanical then we speak of mechanical obstruction, if the cause of obstruction is the lack of intestinal function involving paralysis of peristaltic movements, in this case we are dealing with paralytic obstruction.

Mechanical obstruction is divided according to the course of the diseases:

- for acute or chronic, as a rule, the more obstruction is acute , the higher the obstruction in the gastrointestinal tract.
- depending on the location of the obstruction will be high-involving the small intestine, and low-involving the large intestine.

Causes of mechanical obstruction:

- Obstruction from obstruction, i.e. o b s t r u c t i o n o f t h e intestinal lumen by tumors, displaced gallstones, radiation or post-inflammatory strictures, foreign bodies, polyps, peritoneal adhesions.
- Obstruction from obstruction, can be caused by Intestinal torsion, entrapment of the intestine in a hernia, Indentation or compression by adhesions.

Paralytic obstruction causes:

- Postoperative intestinal atonia, manifested by 1-3 days of lack of peristaltic movements after abdominal surgery
- Peritonitis, here is the result of atrophy of movements peristaltic

  Reflex intestinal atony due to pathological changes in the abdominal cavity and beyond, , attacks of renal and biliary colic, acute pancreatitis, post-traumatic brain conditions and brain tumors, spinal fractures, lead poisoning, for example.
- Secondary paralysis caused by a previous mechanical obstruction that led to a progressive intestinal damage and peritonitis

Intestinal obstruction prevents the movement of food content, thereby disrupting basic digestive processes leading to serious systemic disorders. The most dangerous local lesions for the system develop in the staggered loop, also leading and the peritoneal cavity, increasing pressure due to edema, leads to closure of the arterial lumen, thus leading to ischemia and
necrosis of the intestine.... Gas accumulates in the lumen of the distended loop
,
multiply microorganisms, leading to inflammation
peritoneum and developing septic condition

Backlogged fluid remaining in the intestines , enters the peritoneum. Because of this huge amount of fluid does not take part in water exchange including plasma , there is a significant loss of fluid, by concurrent
vomiting reduces the amount of circulating blood , leading to The development of oligovolemic shock. Fromdue to the accumulation and growth of bacteria, which enter into the peritoneum, there is shock Electrolyte deficiencies also develop, a decrease in sodium, potassium and chloride. On Day 1, alkalosis develops, followed bymetabolic acidosis due to significant fluid loss

Symptoms of obstruction:

mechanical:

- abdominal pain of a paroxysmal nature so-called intestinal colic, if from obstruction has a paroxysmal, colicky nature, last a few seconds every few minutes, in obstruction from obstruction in the first hours colicky pain, later continuous, severe, with
  Peritoneal symptoms, in paralytic obstruction, the pain is constant from the beginning, peritoneal symptoms, Auscultatorily, no peristaltic movements.
- Vomiting, is caused by lodging in the duct of the gastrointestinal tract, often with fecal contents, caused by Proliferating bacteria usually Escherichia coli...,
  are more common in high obstruction.

- Stool and gas retention, is a symptom pertaining to all obstructions, in the first period of the
  High mechanical obstruction, this symptom may be absent until the lagging contents and gases below the obstruction are gone.
- Abdominal bloating, the lower the obstruction is, the bloating is larger
- disorders of intestinal peristalsis

Diagnostic tests performed in obstruction

- X-ray of the abdomen with contrast administration, shows the height and stenosis-CT scan, finds the size of the obstruction, location, excessive gas and bowel ischemia
- endoscopic examinations sigmoidoscopy, colonoscopy, evaluates anal canal and , rectum , as well as the lumen of the intestine
- Ultrasound can detect the presence of fluid in the peritoneum
- capillary blood gasometry
- Laboratory tests, morphology, electrolytes, potentiator, creatinine, hematocrit, general urine test
- physical examination, standing bowel loops and increased bowel peristalsis

Treatment

Diagnosed intestinal obstruction requires emergency surgery due to progressive intestinal necrosis and deteriorating health.

- surgical treatment consists of removal of the obstruction, pressure tumor or release of the incarcerated hernia
- resection of part of the intestine, or creation of an artificial fistula to decompress the diseased intestines
- Perform bypass anastomosis when the tumor is inoperable
- In obstruction caused by inoperable cancer, palliative endoscopic procedures known as "endoscopy" are sometimes performed.
  Destruction by thermal, laser coagulation for differentiation of the lumen of the intestine , prosthesis of the pathologically narrowed intestines.
- The basis for paralytic obstruction is the removal of fluid from the peritoneal cavity.
- in conservative treatment, we use compensatory therapy for existing systemic disorders

Nursing care

- liaison
- keeping an observation card
- intravenous access, administration of colloid fluids
- monitoring
- drainage assessment
- control of acid-base balance
- supplementation of water and electrolyte deficiencies
- Placement of a gastric decompression probe, follow-up outstanding content
- Insertion of foley catheter, control of fluid balance

- administration of broad-spectrum antibiotics in accordance with kzl
- Observation of the patient for peritonitis, septic shock,
  Immediately informing the doctor about worrying symptoms
- pain therapy
- observation for quantity and quality of vomiting and stools
- Preparing the patient for surgery, explaining the necessity of the procedure
- Observation of parameters, dressing, drains after surgery
- observation of a rectal fistula, if it was emerged
- Early postoperative passive rehabilitation
- early enteral nutrition, if peristaltic movements allow and there are no contraindications, possible parenteral nutrition
- thromboprophylaxis

Acute pancreatitis:

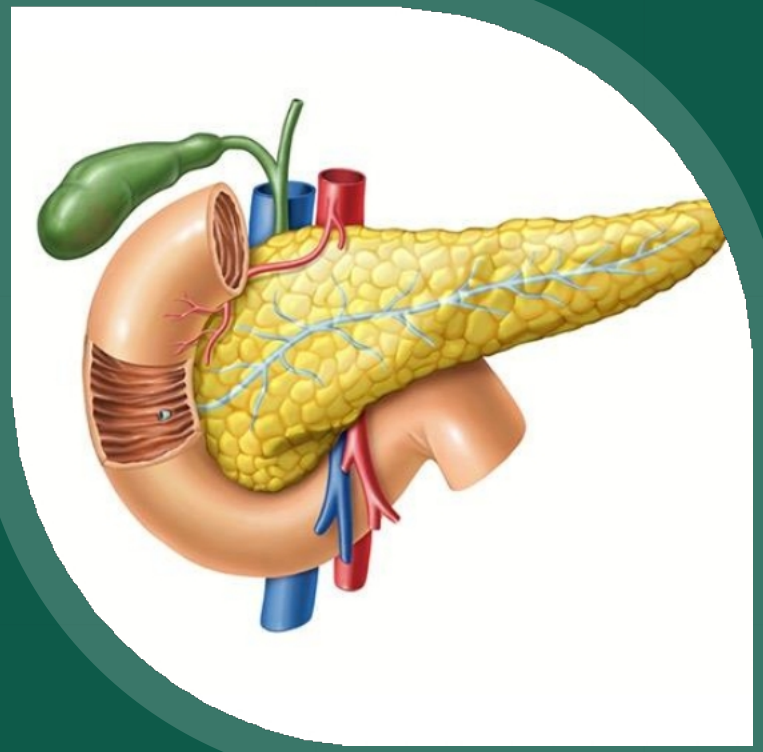
The pancreas is an organ that regulates the function of the digestive tract and absorbed substances. Clusters located endocrine are called islands, Islands are found throughout the organ, but the largest number are located in the tail of the pancreas. They produce glucagon, insulin, polypeptide and somatostatin.

The release of glucagon and insulin depends on blood sugar concentration, while somatostatin inhibits the secretion of insulin, glucagon, gastrin. The extra excretory part is formed from
Vesicles, forming lobules. The pancreatic juice produced by the vesicles enters the papilla of Vater along with the common bile duct.

Acute pancreatitis, in simple terms, involves "self-digestion" of the pancreas by enzymes there manufactured.

On morphological grounds, acute pancreatitis we divide into :

- Mild edema
- Severe necrotizing hemorrhagic disease



Pancreatitis is caused by intrapancreatic activation of digestive enzymes , leading to parenchymal autolysis. As a result of impeded outflow of pancreatic juice, there is a backflow of juice intothe inter-alveolar space causing swelling, which mayresolve spontaneously without causing inflammation. If the swelling persists for a long time or recurs, it is common to develop ICP.

Causes of acute pancreatitis

- Diseases of the biliary tract, against a background of gallstones lithiasis pancreatic and alcohol abuse
- Genetic factors, obesity
- Infectious agents, infectious and parasitic diseases, mumps, rubella viruses, hepatitis, HIV, bacteria, fungi, parasites
- Immunosuppressants, anti-inflammatory drugs, diuretics, steroid drugs
- Abdominal injuries
- Shock, heart attack, malignant hypertension
- Hypercalcemia and hyperlipidemia
- Autoimmune diseases
- Incorrectly performed ERCP
- 10-20% is of unknown etiology

Symptoms

- very strong abdominal pain, with a girdling character
- Vomiting, nausea that does not bring relief
- Pain radiating to all sides, associated with heart attack
- rising body temp.
- Tachycardia due to pain or due to inflammatory processes in the lungs, atelectasis, left pleural effusion, ARDS
- hypertension resulting from aortic plexus stimulation or low blood pressure indicating the development of hypovolemic shock
- redness of the face
- jaundice , when the cause is lithiasis of the bile ducts
- increased sweating
- Paralysis of the intestines by irritation of the peritoneum
- pancreatic ascites
- disturbances of consciousness
- In the form of hemorrhagic erythema on the cheeks in the shape of butterfly wings, skin symptoms, bruising, marbled appearance, bluish lesions in the lumbar region and arms

Diagnostics

- Performance of abdominal ultrasound
- CT scan of the abdomen
- Abdominal MRI, allows assessment of the parenchyma pancreas
- ECPW (cholangiopancreatography),
- performing laboratory tests.

Treatment

- Modern treatment is based on shutting down the digestive system, which will reduce pancreatic juice secretion, prevent catabolism and reduce pain
- Keep surgical intervention to a minimum
- Pharmacotherapy, administration of painkillers and diastolic agents, in case of drug resistance, an epidural catheter is inserted and pain medication is administered as prescribed by continuous infusion excluding the gastrointestinal tract.

Treatment of stunted ACS involves the establishment of an ERCP

Severe form of ICS can lead to the following complications:

- Pancreatic necrosis, cyst, pancreatic abscess
- Shock
- Respiratory failure
- Kidney failure
- Gastrointestinal bleeding.

The surgical procedure is performed in the case of:

- Diffuse pancreatitis
- Clinical deterioration
- Persistent shock with a tendency to worsen the severe condition
- Increasing symptoms of obstruction
- Worsening respiratory failure
- Water and electrolyte disorders
- Acid-base imbalance

The surgical procedure consists of minimizing by limiting the scope to treat complications, performing the removal of necrotic tissue and inserting a flow drain, In the case of canine ICS, gallbladder excision is performed.

Nursing care

- ensure peace, quiet, security
- pain therapy
- monitoring keeping an observation card
- Foley catheter insertion, diuresis control, balance control fluids
- applying poultices to the pancreas area
- strict diet
- insertion of a gastric tube, control of flowing contents
- antibiotic therapy in accordance with Kzl

- fluid therapy
- measurement of vital signs
- control of laboratory tests
- If necessary, prepare the patient for the procedure
- measurement of central venous pressure
- assessing the tension of the abdominal integuments
- consciousness check

Acute appendicitis

- The appendix is located intraperitoneally, is a diverticulum of the cecum, its length is 8-10 cm, the mucosa has numerous lumps
  lymphatics. Appendicitis occurs at any age, most affects people between 20-40 years of age, equally in men and women. In the elderly it is rare, most often caused by obstruction by fecal masses, less often by parasites, in younger people by swelling of lymphoid tissue, the etiology of this condition is difficult to explain.
- Pain in the umbilical region, radiating to the entire abdominal cavity, initially located in the middle of the upper hip plate spike to the umbilicus, later mainly in the right hip plate region

Symptoms:

- Achicardia, up to 120 beats/minute
- nausea and vomiting
- elevated body temperature from a subfebrile state to 38 -39 degrees C
- on physical examination, blunberg's peritoneal sign is found
- muscle defense in the right lower abdomen
- Soreness at McBurney's point(half way from the iliac spine to the navel)
- Rowsing's sign(hand pressure on the left side of the abdomen, will cause pain in the right side)
- cough symptom(when coughing, increased pain)
- Rectal examination, soreness on the right side
- normal peristalsis of the gut, in the advanced stage quietness in the abdomen
- In laboratory tests, elevated leukocyte and hematocrit levels, elevated C-reactive protein as local inflammation of the peritoneal cavity develops

Treatment:

The patient admitted to the hospital is operated on within hours of the admission, the procedure involves removal of the appendix, often by the method of laparascopic. After the procedure, the patient may have a drain left in the peritoneum, the decision is made by the doctor at the time of the procedure, depends on the condition of the appendix, whether it is purulent, gangrenous or perforated, and whether there is a cloudy exudate in the peritoneal cavity.
Removal of the drains depends on the quantity and quality of the fluid flowing.

There are situations that the patient reports too late and the inflammatory process is already underway, the consequence of which will be, diffuse peritonitis or, inflammatory infiltration forming a tumor.

Perianal infiltration, history of pain for days, nausea and vomiting, tumor vividly painful in the right lower abdomen, after about 4 days not painful. The patient is under conservative treatment, diet Fibronectin-free, antibiotic therapy, resting treatment. The patient is discharged home, with the recommendation to perform a colonoscopy to rule out a neoplastic process. It is not necessary to remove the appendix after infiltration.

Diffuse peritonitis, the cause is usually diffuse Escherichia coli, pyoderma, blue pus, streptococcus and anaerobic bacteria. In the course of the inflammatory process, exudative fluid is produced, initially serous and Fibrous then purulent. Loss of fluid, withholding fluid supply and retention of extracellular fluid leads to oligovolemia. Bacteria enter the bloodstream from the peritoneal cavity. Oligovolemia and ingressing toxins lead to a life-threatening condition zcłowiek.

Symptoms:

- diffuse abdominal pain
- blumberg's sign
- boarder belly
- silence in the abdomen
- vomiting and nausea
- dry, coated tongue, indicative of developing hypovolemia
- enlarged abdominal circumference
- general symptoms like tachycardia
- accelerated breathing
- reduced blood pressure
- scanty urine, then anuria
- patient sweaty
- patient avoids movement, lower limbs bent at the knee and hip joints

The diagnosis is based on:

- Interview
- Subject examination
- Abdominal X-ray
- CT scan of the abdomen
- Abdominal ultrasound
- Laboratory test results

Here, treatment includes:

- emergency surgery, the procedure involves excision of the appendix, changed inflammation, cleaning and flushing the peritoneal cavity of purulent contents, leaving a drain in place of the removed appendix, antibiotic therapy.

NURSING CARE

- pain therapy
- Urinary catheter, diuresis control
- Fluid balance, administration of diuretics as needed
- monitoring , keeping an observation sheet
- infection prevention
- Abdominal drainage control. flowing fluid
- early passive rehabilitation
- prevention of postoperative complications
- provision of biological needs
- Talking to the patient, weakening anxiety, fears
- control of laboratory tests
- antibiotic therapy
- intravenous access, fluid therapy
- prevention of blood clots

Thank you for attention!