АNSWERS TO SITUATIONAL TASKS FOR

THE 4 TH YEAR STUDENTS OF

МEDICAL FACULTY

Task 1

A clinical examination, including palpation, percussion, checking the symptoms of acute appendicitis is necessary to clarify the diagnosis. Additionally can be used rectal examination. Additional visualized methods of ultrasound examination (the hepatobiliary system, kidneys, the area of the caecum, the presence of fluid levels in the abdominal cavity), fibrogastroscopy, tomography are necessary to provide in case of a doubtful diagnosis.

Task 2

The injection of low-density heparins or 5000 IU of non-fractional heparin subcutaneously into the abdominal area 1-2 hours before surgery is indicated for the prevention of pulmonary embolism in the preoperative period.

Task 3

 Preoperative preparation for two hours is shown, which includes laboratory examinations, examination of the cardiovascular and pulmonary systems. If necessary, preoperative preparation can be extended by the decision of the council. Treatment is emergency surgery – lower-median laparotomy under intubation anesthesia, appendectomy, sanitation, drainage of the abdominal cavity.

Task 4

Recommendations to the patient at discharge are laparoscopic appendectomy at elective indications in a month.

Task 5

The etiology of the occurrence of hernia in this patient is associated with an increase in intra-abdominal pressure, due to straining during urination. First of all, a prostate examination, consultation and treatment of a urologist should be performed. Subsequently, when urination is normalized, allogernioplasty is performed laparoscopically or according to Lihtenstein technique as an elective manipulation.

Task 6

This is the specific type of inguinal hernia – “sliding hernia”. To clarify the diagnosis, it is necessary to pull the hernial sac during palpation, which will cause the urge to urinate. The preoperative methods of examination in this clinical case are ultrasound of the wall of the hernial sac, cystography, irrigography. During the operation, the hernial sac is not opened, it is immersed in the abdominal cavity.

Task 7

Acute pancreatitis developed as a result of complications of ERCP and EPST in this clinical situation. The common bile duct and the main pancreatic duct in more than 85% of cases open into a common ampoule of the large duodenal papilla (LDP). On the mucous membrane of the LDP ampoule, transverse, longitudinal, oblique folds are developed to varying degrees, which are always directed to the opening of the LDP, which can create significant obstacles when performing ERCP. The injure of the orifice of the main pancreatic duct, contribute to the penetration of contrast agent into the duct. When performing EPST, a burn of the orifice of the main pancreatic duct is possible. All this leads to the development of ductal hypertension and, as a consequence, acute pancreatitis. Imaging methods of instrumental diagnostics in this case should be ultrasonic examination (ultrasound) and magnetic resonance imaging (MRI). Acute pancreatitis is characterized by: an increase in the size of the pancreas, blurred contours, a decrease in echogenicity due to edema. There may be an accumulation of fluid in the omentum bag, retroperitoneal space. Tactically, the patient is indicated conservative multicomponent pathogenetic treatment of acute pancreatitis. As a rule, it includes: elimination of the etiological factor, the fight against pain syndrome (baralgin, analgin, catheterization of the peridural space, etc.), antispasmodics (papaverine, platyphylline, no-spa, etc.), the creation of functional rest of the gland (hunger, sandostatin, aspiration of gastric contents, kvamatel, etc.), elimination of water-electrolyte disorders (crystalloids, colloids), extracorporeal detoxification methods (plasmapheresis, hemosorption), prevention of septic complications (broad-spectrum antibiotics), laparoscopic drainage of the abdominal cavity with the development of enzymatic peritonitis. It should be additionally noted that with the preservation of biliary hypertension or suspected damage to the retroperitoneal part of the choledochus with the ingress of the contents into the retroperitoneal space, it may be necessary and currently it is absolutely realistic to perform - endoscopic positioning of a stent of a special design into the EPST zone with an insulating and draining purpose.

Task 8

Acute biliary pancreatitis, cholelithiasis, mechanical jaundice, (fixed) pinched stone of the large (major) duodenal papilla.

The patient must be placed in the intensive care unit to carry out medical treatment of acute pancreatitis. Fibrogastroduodenoscopy and magnetic resonance imaging urgently was performed. Endoscopic papilosphincterotomy, lithoextraction were performed in case of infringement of the stone in the large duodenal nipple. This amount of treatment is sufficient for this age patient, who also suffers from severe concomitant pathology.

Diagnostic algorithm consists of clinical analysis of blood, urine, blood clotting time, time of bleeding. Biochemical studies: bilirubin, total protein, urea, creatinine, ALT, AST. Determine the blood group, Rh factor. Taking an ECG, performing an overview radiography of the thoracic cavity, consulting a therapist. Fibrogastroduodenoscopy and objective imaging on tomography perform urgently. According to the indications, endoscopic papilosphincterotomy, during which the question of endoscopic retrograde cholangiography may become.

Task 9

Chronic external hemorrhoids. Hemorrhoidal bleeding. Differential diagnosis: polyp, cancer, rectal prolapse, bleeding rectal fissure. Conservative therapy aimed at treating erosions and stopping bleeding is indicated. In the future, elective minimally invasive surgical treatment: ligation of hemorrhoids with latex rings, infrared photocoagulation, laser ablation, Doppler-controlled dearterialization of hemorrhoids. The operation is a hemorrhoidectomy according to Milligan-Morgan or Parks in the case of a classical surgery.

Task 10

Diagnosis: Acute subcutaneous periproctitis. There are subcutaneous, submucosal, ischiorectal, pelviorectal, retroectal depending on the location of the pathology. The differential diagnosis of periproctitis is provided with perineal abscess, hydroadenitis, perineal boil. The opening and drainage of the abscess from the semilunar incision under peridural anesthesia is shown.

Task 11

Destructive appendicitis, diffuse peritonitis. After complex preoperative preparation (nasogastric probe with evacuation of gastric contents, catheter into the bladder to account for hourly diuresis, catheterization of the central vein for infusions of crystalloids and colloids, volume taking into account hourly diuresis and CVD and BP.; empirical antibiotic prophylaxis (IV generation cephalosporins, aminoglycosides, metranidozole or carbapenems - intravenously) emergency surgical intervention is indicated – laparoscopic appendectomy, sanitation, drainage of the pelvis by setting drains in the right and left iliac region.

Task 12

 Examinations: laboratory: general blood test (leukocytosis, shift of the leukocyte formula to the left, toxic granularity of neutrophils), urine (increased leukocytes, presence of unchanged erythrocytes); ultrasound – the presence of fluid formation in the abdominal cavity between the loops of the intestine. Tommography (MRI or CT) is used for complete vizualisation of the pathological process. If an acoustic window is detected (absence of intestinal interposition) - drainage of the abscess under ultrasound control with further permanent sanitation and active aspiration. If the abscess is completely surrounded by intestinal loops, a mid-median laparotomy, opening of the abscess, sanitation followed by drainage through a separate incision is indicated.

Task 13

1. Stomach ulcer. Stomach ulcer complicated by bleeding, moderate severity of blood loss.

2. General blood analysis (platelets, hematocrit), general urine analysis, biochemical blood analysis (glucose, urea, creatinine, total protein, bilirubin, K+, Na+, AST, ALT), clotting time, blood type, Rh factor, coagulogram. FGDS, Chest radiography, ECG, therapist consultation.

3. This patient has ongoing bleeding from an ulcer. The best option would be local endoscopic hemostasis. If it is impossible to perform it or ineffective, an emergency operation is indicated. Transport the patient from the emergency department to the operating room. Install catheters in the central vein, bladder, put a probe in the stomach. To carry out infusion-transfusion therapy, transfuse erythrocyte mass with a replacement purpose, freshly frozen plasma with a hemostatic purpose. Simultaneously perform surgical intervention – stomach resection (partial gastrectomy).

Task 14

1. Duodenal ulcer (duodenal ulcer). Duodenal ulcer, complicated by bleeding, moderate severity of blood loss.

2. General blood analysis (platelets, hematocrit), general urine analysis, biochemical blood analysis (glucose, urea, creatinine, total protein, bilirubin, K+, Na+, AST, ALT), clotting time, duration of bleeding, blood type, Rh factor, coagulogram. FGDS, Chest radiography, ECG, therapist consultation.

3. With continued bleeding, in case of an unsuccessful attempt to stop it endoscopically, emergency surgery is indicated, with stable hemostasis – conservative anti-ulcer treatment.

Ongoing or repeated bleeding. Moderate and severe degree of blood loss, ulcer diameter of more than 1 cm, deep penetrating ulcer in the projection of large vessels, signs of unstable hemostasis (fresh red blood clot with blood leakage).

Task 15

1. Peptic (or duodenal) ulcer complicated by pylori-duodenal stenosis.

2. Tumors of the stomach or duodenum, cancer of the head of the pancreas or large duodenal papilla, chronic pseudotumorous (head) pancreatitis, chronic duodenal obstruction, high small intestinal obstruction.

3. X-ray examination of the stomach with barium sulfate. The contrast mass in the stomach is delayed for 12-24 hours. Fibrogastroduodenoscopy (FGDS) - narrowing of the pylorbulbar zone to 3-5mm, the phenomenon of erosive gastritis, esophagitis.

4. The patient is shown surgical treatment after preoperative preparation aimed at eliminating water-electrolyte disorders. The variant of the operation is gastric resection (or a variant of organosaved operation – parietal cell vagotomy with stomach draining surgery – pyloroplasty.

Task 16

1. Peptic ulcer of the duodenum. Duodenal ulcer, complicated by bleeding, moderate severity of blood loss.

2. General blood analysis (platelets, hematocrit), general urine analysis, biochemical blood analysis (glucose, urea, creatinine, total protein, bilirubin, K+, Na+, AST, ALT), clotting time, duration of bleeding, blood type, Rh factor, coagulogram. FGDS, stomach radiography with barium sulfate, OGC radiography, ECG, therapist consultation.

3. It is necessary to a) stitch the eroded vessel at the bottom of the ulcer with suturing of the mucosal defect above it, perform gastric drainage surgery and vagotomy; b) stitch the eroded vessel with the ulcer tamponade with duodenoplasty (Finney type), pyloroplasty (Finney type), perform vagotomy;

Task 17

Preoperative preparation together with the therapist and the resuscitator in the first two hours is shown. According to the decision of the council, the duration of preparation can be continued. With the continued inability to perform general anesthesia and critical levels of its risks, the operation will consist in the imposition of cholecystostomy under local anesthesia with simultaneous support of the cardiovascular system.

Task 18

The patient is shown an ultrasound examination of the hepatobiliary system in order to study the width of the choledochus, the echogenicity of bile in it and the presence of hyperechogenic structures. When concrements are detected, endoscopic retrograde cholangiography (MRHG) is indicated, followed by pappilotomy and extraction of them with a Dormia basket. If the size of the stone is more than 1 cm, contact ultrasonic crushing is shown before extraction. There are the conditions of surgical intervention if lithoextraction is impossible.

Task 19

 Sigma resection or left-sided hemicolectomy. The operation must be completed by applying a colostomy.

Task 20

It is necessary to form an ileostomy.

Task 21

There was simultaneous damage of the arterial and venous femoral pathways with the formation of an arterio-venous false femoral aneurysm with a knife wound. Currently, there is a possibility of reliable isolation of the arterial lumen by endoluminal positioning of the peripheral endograft. This manipulation will reliably seal the place of arteriotomy, stop the flow of blood into the cavity of the false aneurysm, lead to its obliteration and stop the discharge of blood into the venous vascular bed.

Task 22

The patient developed acute arterial insufficiency of the right lower limb of the IIa-IIb degree according to V.S. Savelyev, most likely due to thrombosis of the femoral-popliteal arterial segment. The patient needs emergency revascularization of the limb. Performing classical pathogenetic surgical intervention (thrombembolectomy) is very problematic due to the extremely high probability of obtaining an unfavorable outcome in the postoperative period. Currently, it is possible to perform partial or complete thrombectomy by endovascular method (aspiration – Rebirth catheter, rheolytic - AngioJet, rotary–aspiration - Rotarex). Moreover, most often this manipulation is supplemented by dilatation and, possibly, stenting intervention, ensuring the resumption of sufficient blood supply to relieve decompensated ischemia. In this clinical case, the use of minimally invasive endovascular technology is preferable and certainly justified.

Task 23

According to the described clinical and anamnestic data, it is possible to evaluate the first two elements of the International Classification - CEAP: C (Clinical) C2 - stem varicose veins. E (Etiological) Ep, P- primary (primary). The abbreviation A (Anatomic) anatomical; and P (Pathophysiological) pathophysiological; can be finalized after performing an ultrasound examination of the veins.

Task 24

 Taking into account the lack of data on the lesion of stem and perforator venous vessels, it is possible for the patient to perform injectable foam sclerotherapy or miniflebectomy under local anesthesia.

Task 25

Varicose veins of the lower extremities were complicated by acute thrombophlebitis of the subcutaneous veins of the lower leg.

Task 26

Acute thrombophlebitis of the deep veins of the right shin. The condition of the deep venous system of the lower extremities should be assessed by ultrasound Doppler investigation.

Task 27

The patient is not undergoing rehabilitation of the bronchial tree. The patient must be transferred to a specialized thoracic department for comprehensive treatment.

Task 28

Amyloidosis of internal organs. Surgical treatment - lower lobectomy.