

Damage to the duodenum

(Three cases from practice)

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Abstract: The analysis of the results of surgical treatment of 3 patients with lesions of the duodenum caused by closed abdominal trauma. In the first case in a patient 23 years of injury incompatible with life after an accident, the second patient in old age with a complete rupture of retroperitoneal 12 duodenal ulcer (DU) with a 3-day peritonitis, in the third case, the student railway technical-intraperitoneal damage during physical education lessons. Both patients were operated, there were no complications. Presented in this paper the issues of diagnosis and surgical tactics during surgery especially when retroperitoneal rupture (duodenum) with a 3-day peritonitis as a unique case study.

The analysis of the results of surgical treatment according to the literature the following authors: Teals RN, Abikulov MM, Vladimirov ES Beresneva EA, Evdokimov VN, Kerimov ES .. For example: PA Ivanov AV Grishin describe. that in 61 patients with lesions of the duodenum. cause of whom 24 had a penetrating wound of the abdomen, from 7 - gunshot wound. in 26 - closed abdominal trauma, in 4 - damage to the gut by endoscopic papillosphincterotomy (EPST). All patients were operated on. Complications were observed in 32 (52.5%) patients died 21 patients, mortality was 34.4%. On the first day of severe combined trauma, shock, blood loss, 7 patients died, survived the acute phase of injury, 54 patients, including 28 open after injury, 26 after closed and after 4 in damage to the duodenum in EPST. Discussed the diagnosis and surgical tactics and especially intraoperative revision at retroperitoneal duodenal rupture of the stomach. According to the literature the largest share of adverse outcomes due to suppurative complications due to progressive retroperitoneal phlegmon in insolvency seams duodenal ulcers, traumatic pancreatitis, pneumonia, which led to the death of the patient. Hence the importance of timely adequate autopsy have with drainage of infected tissue sections for the peritoneum Winternitz drainage for aspiration-wash treatment. Effective measure to prevent insolvency joints and traumatic pancreatitis are decompressed through a tube with a constant aspiration of gastric contents-duodenally postoperatively. Inhibition of pancreatic and duodenal secretion by the application of octreotide, which considerably improves the results of surgery.

The purpose of this article is to describe the unique clinical cases from many years of surgical practice, analysis and synthesis of the literature data on the diagnosis and surgical treatment of retroperitoneal and intraperitoneal breaks 12-duodenum from the stomach.

Relevance is that to date, the problem of timely diagnosis and adequate surgical treatment of fractures of 12 duodenal ulcer is understudied as evidenced by high mortality in closed injuries of the body. According to the summary statistics on the mortality of this injury is - 45%. At the present stage, the proportion of injuries duodenal ulcer (DU) is 1.2% -1.7% [2,3], and does not exceed 10% of all traumatic injuries of the abdominal cavity. Injuries of the abdominal cavity are presented closed open isolated, mix and match injuries duodenum 12. The most difficult runs complete ruptures of the duodenum from the stomach and occurs 3-4 times less than its partial rupture. . Low rates of injury due to the anatomy of the duodenum [11,12] consisting of three sections: the upper part (pars superior), descending part (pars descendens) lower part (pars inferior) in particular, the relatively small size, topographic location, protection muscles of the abdominal wall and adjacent organs in front. vertebral bodies back to the top of the horizontal part (pars superior KDP) length of 3-4 cm. diameter up to 4 cm by 3/4 of the circle covered abdominal relative mobility (in one of two cases in our practice meets insulated gap. in this part with outpouring of blood in the mesentery (mesocolon).

According to the literature breaks the duodenum are not usually isolated. [1,3,9] often damaged in conjunction with colon and other organs (47.5%). Isolated damage duodenum [4] By its deep position are extremely rare, however, a dense base on which the intestine and colon flexing in favor of this damage. The mechanism of blunt trauma (KDP) depends on the strength and direction of impact, and the degree of filling food duodenum 12. Often intestine is damaged by direct trauma (fall from a height, punch in the stomach) and in most cases damaged intra-department intestine. Clinical features of intraperitoneal rupture of the duodenum shortly after blunt trauma occurs clinic "acute abdomen" [5,6]. Later, when the contents of the 12 - duodenum, having the ability to induce necrosis of surrounding tissue, penetrates into the free peritoneal cavity, intra-abdominal catastrophe symptoms become apparent. The speed and extent of rise of the symptoms depend on the gap of the duodenum, the degree of filling it into the traumatized area, propagation velocity, the contents in the retroperitoneal space and its penetration into the abdominal cavity. Symptoms of isolated lesions of the duodenum is largely dependent upon the integrity of the parietal peritoneum [7,8]. The clinical picture of open injuries differs little from that in closed her tears: shock, bleeding, peritonitis. Damage retroperitoneal located parts of the duodenum, often accompanied by the appearance of a hematoma, which quickly leads to

complications: cellulitis of the retroperitoneal fat. Immediately after the injury clinic retroperitoneal damage duodenum 12 fits into the picture of shock. Symptoms of peritoneal irritation with retroperitoneal rupture may occur within 8-16 hours [5] and the liquid contents of the gas at the same time spread in the retroperitoneal space along the right psoas muscle and right-side channel. Pain, which in this case there can simulate the clinical picture of the right kidney damage [13] When the retroperitoneal injury 12 duodenal ulcer in early diagnosis is difficult: the indefinite nature of pain, often localized on the right half of the abdomen, right upper quadrant and right lumbar region. According to some researchers [6] some help in the diagnosis of retroperitoneal duodenal injury may have the presence of abrasions, bruises and smoothed contours or swelling (hematoma) in the lumbar region. On palpation of the posterior abdominal wall of the abdomen is often possible to determine the swelling or in the right iliac region by descending hematoma. Through 18-36 hours after injury in the right groin and scrotum begins to appear greenish coloration of the skin due to the impregnation of subcutaneous fat in the bile. Can be single or double entry type chair melena due to the ingress of blood into the lumen of the duodenum torn. Symptoms of peritonitis appear after a while.

No voltage at the abdominal wall clearly localized abdominal pain necessitates careful monitoring of such patients, especially if they are injured in alcohol intoxication, as in our patient, which is within 3 days did not seek medical help. It should be noted that the injury of the duodenum is very dangerous, because the reactivity of its secretions (enzymes), joining a mixed-type auto-infection often leads to severe intoxication and development of severe peritonitis. In the available literature describes that a closed duodenal injury victims arrived in critical condition, most of them in a state of shock. Patients complained of considerable pain in the epigastrium, right upper quadrant, and the right half of the lower abdomen. For late-treatment appear: bloating, intestinal paresis, accompanied by nausea and vomiting. All patients observed: marked tachycardia, dry tongue, regidnost muscles of the anterior abdominal wall, and a symptom of peritoneal irritation. Deterioration of the general condition of the patient, the surgeon forced to increase intoxication resort to diagnostic laparoscopy or laparotomy. With the proliferation of the duodenal contents and blood in the abdominal pain is increasing, there are weakness, thirst, nausea, sometimes vomiting with blood. Pallor of the skin, confusion, or, on the contrary, the excitement. In clinical disease is increasing tachycardia and leukocytosis with a shift to the left leukocyte. In a laboratory study, pay attention to increase of amylase in the urine (more than 256 units. Wohlgemuth on) through 8-10 hours after injury. In some cases, intramural

hematoma of the duodenum can simulate high small bowel obstruction due to partial obstruction of the lumen bowel hematoma. If you suspect damage to the duodenum Recommend gastroduodenoscopy, which allows to identify even small break, although the insufflation gas stretched the gap dimensions.

Approximately the clinical picture of a patient admitted to the hospital G. 58 years old - the GPW, which brought to an ambulance three days after the injury in the surgical department of the hospital train Aktobe. Complaints on admission for abdominal pain, bloating after injury appeared to 2-3 s day. From the words of the patient (on a Friday night on the way home from the restaurant was beaten with 2 unknown persons), was injured in alcohol intoxication, turned only on Monday to the end of the day for medical assistance. On admission to our clinic duty in a serious condition due to intoxication. The victim of overweight, in a semi-sitting position, shortness of breath. The visible mucous membranes and skin pale. Tongue dry, pulse 98-110 beats per 1 "weak filling and tension. Breathing frequent surface. Cardiac sounds are muffled, blood pressure 110/60 mm Hg evidence of rib fractures is not. Belly increased sharply swollen and tense, in the act of breathing When not involved palpation tenderness in the epigastric region, muscle tension in all departments, hepatic dullness stored in sloping areas blunting not. Symptoms Shchetkina-Blumberg, the Resurrection, Mondor and OE strongly positive. On the front surface of the lumbar and abdominal signs of external damage is not. When fluoroscopy and Review graphy abdominal cavity below the diaphragm and above the liver of free gas is not. When analyzing blood hemoglobin 78%, leukocytes 14200. stab - 4%, segmented - 87% -10% of lymphocytes. monocytes 1%, SOE-50mm. hour. Urinalysis: trace protein. Examined the patient and assistant professor of emergency surgical treatment is recommended. Preoperative held in reanimauiionnom department. Under endotracheal anesthesia with relaxants made upper-middle paparotomiya (medical team: VM Abashin anesthesiologist, surgeon and two A.B.Bayzharkinova - subordinators) By opening the abdominal effusion is not. During the revision of 12 duodenal ulcer in the upper horizontal part (pars superior), there is a retroperitoneal hematoma with the transition to the mesentery of the transverse colon, "ad ocellis» other damage was not. In the projection of the pyloric part of the stomach and the horizontal of 12 duodenal ulcer peritoneum imbibirovana green tint of brown liquid and a hematoma, which is passed to the root of the mesentery of the transverse colon. In the area (pars superiog), made the mobilization of the duodenum by Kocher, while stood dark greenish brown thick liquid in an amount of 20 lm., Which is aspirated. Gap KDP covered on the front surface of the peritoneum.

In this case, the diagnosis: full retroperitoneal (circular) cross the gap 12 of the duodenum close to the bulb (bulbus duodepi) from the stomach and has a retroperitoneal hematoma, which was removed, sanitized. Refreshed edge wounds of the stomach and 12 - duodenal ulcer imposed anastomosis "end to end" double-row stitching on the rules, starting with the rear lip with continuous sutures zahlestkoy Mul'tanovskii and moving to the front lip Furrier suture method Schmid and V.M.Svyatuhina. Then imposed Front vperedibodochny gastrointestinal anastomosis (gastroenteranastomoz on Velflera-Nikoladoni) with mezhkishechnye fistula (enteroenteroanastomosis) in Brown with seams Pribram between leading and outlet loops at a distance of 15-20 cm from gastroenteranastomoza to eliminate the complications of "vicious circle". Resulting in a long loop with intestinal anastomosis because the total hematoma passed on the mesentery of the colon, and avoiding last assessed anterior Front gastrojejunostomy. By drainage in the retroperitoneal space, obstructive and right iliac regions. Given Z-day-old abdominal trauma ("dry" peritonitis) and complete retroperitoneal rupture 12 duodenum from the stomach had to go to the "off" and put the front-front gastrojejunostomy, but a successful combination of the type Bilrot- I with anterior-anterior gastroenteroanastomosis by Brown and aftercare during the given effective result Nasogastric tube removed after three days. In the postoperative period were paresis and clinical phenomena anastomosis, conducted after adequate medical treatment. eliminated. Patients underwent detoxification therapy: antibiotic solution through the upper drains into the abdominal cavity and intramuscular, parenteral nutrition - salt and adequate protein preparations improved the condition. Were treated with inhibitors, vitamins and drugs to stimulate immunity. At the appropriate time, remove retroperitoneal and intra-abdominal drains. Skin sutures are removed 12-13 days, healing "primary wound." The patient was discharged in satisfactory condition at home for follow-up care and clinical supervision in a clinic. Early and late results are good, now sick of retirement, active, though his age ninety. With 12 retroperitoneal rupture duodenum from the stomach were operated in the surgical clinic of the railway hospital in Aktobe. Where 1977-1978 years was based in the Department of Hospital Surgery AkGMI (Head. Pulpit dmn., Now a professor, academician of NAS RK N.I.Izimbergenov, who at that time was on a business trip).

Second case: railway technical school student with intraperitoneal rupture of the anterior wall of the duodenum 12 was operated by the same team in the surgical department of the railway hospital, when based at the Department of General Surgery Professor MD VI Savitsky. Intraperitoneal rupture of the anterior wall of the 12 duodenal ulcer with a similar clinic perforated ulcer. Of railway history

student: in the afternoon with a full stomach it is drawn on the bar at this time. (his friend "accidentally" struck his fist straight punch to the stomach) have stomach pain. Patient immediately within one hour after the injury was taken to the surgical department of the railway hospital. In this case X-ray examination was air over the liver in the form of a "sickle." ie immediately verified diagnosis of intraperitoneal rupture closed 12 duodenal ulcer or any hollow organ. With the participation of the surgeon of the central railway hospitals during surgery of upper midline laparotomy was incomplete intraperitoneal rupture of the anterior wall of the duodenum 12 1.5 * 2cm. Also performed Upper midline laparotomy, after reorganization of the abdomen and suturing the anterior wall 12 duodenal ulcer, abdominal drainage and appropriate drug treatment, the patient recovered quickly, was discharged for outpatient treatment. Military service has been temporarily suspended. Observations of this patient showed after a while, our "former victim" - a railwayman, now works as an engineer on the railroad, no complaints at periodic medical examination.

Conclusions: 1 Closed injuries of 12 duodenal ulcer diagnosed as difficult preoperatively and intraoperatively and are accompanied by severe complications and high mortality.

2 During the operation, attach special importance to a thorough revision of the retroperitoneal space. Indication for which is the presence of one of the most important features. which are the retroperitoneal hematoma and imbibirovanie green color liquid tissue peritoneum in 12 duodenal ulcer.

3 Tactics of surgery depends on the time after the injury, as well as on the level of damage to the duodenum 12.

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