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ABSTRACT

THESIS

A critical evaluation of surgical treatment of gastroduodenal ulcer in
design etiopathogenic and current therapeutic

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The discovery of *Helicobacter pylori* and its role in defining the etiopathogenesis of ulcer disease changed radically in gastroduodenal ulcer pathogenic design and modern combination therapy, antiseptor and eradication of *Helicobacter pylori*, have tilted the balance in favor of therapeutic conservative option.

Consequences of this new concept of pathogenesis and therapeutic developments in dynamic indication gastroduodenal ulcer surgery, performed in Craiova Surgery, allowed the following findings:

- A significant decrease in the average number of cases per year from 187 hospitalized in clinical cases per year in the first decade studied, from 87 cases per year in the last

- Significantly lower incidence of chronic progressive complications (penetration and / or stenosis) in 47-37 and then to six cases per year, due to early diagnosis and effective conservative treatment started in time

In terms of acute complications (bleeding and perforation), their share has not suffered significant decreases with therapeutic attitude change, remaining almost the same as before.

This paper has attempted to establish the place and indications of surgery in the modern therapeutic arsenal of gastric and duodenal ulcers, a comprehensive study on a number of 609 cases of gastric and duodenal ulcers, admitted and treated in the last seven years (2002-2008), of which 591 (97.04%) complicated and 18 uncomplicated. Given this structure of casuistry, research has focused primarily on evolutionary complications of gastric and duodenal ulcers. A first remark is that in our research, the main complication is bleeding peptic ulceration evolving (53%), followed in order by perforation (43%) and chronic complications of penetration and / or stenosis (4%)

Bleeding can occur in any form antomo-clinical development and etiopathogenic gastroduodenal ulcer. The study covers 309 (50.73%), bleeding ulcers, with an average incidence of 44 cases per year. visible amid a growing trend.

Demographic data showed clear predominance of male patients (sex ratio = 2.87 / 1) and those residing in urban areas (166/144) and the maximum incidence in groups 51-60 and 61-70 years, including almost half the cases (49.81%). We encountered the following related comorbidity, and risk factors considered serious issue in the development of ulcer bleeding (cirrhosis / chronic hepatitis, 2.58%, 6.42% hypertension, diabetes mellitus, 3.55%, 1.61% disabling stroke and CIC / heart failure 5.50%) and consumption of toxic and / or offending drugs - predisposing factors / underlying bleeding stomach ulcers and / or duodenal: alcohol (47.09%), coffee (24.83%) smoking (28.06%) and NSAID consumption (11.29%).

Bleeding was encountered in substantially the same proportions in the evolution of gastric ulcers (150 cases = 48.54%) and duodenal ulcer (149 cases = 48.22%).

Topographic survey forms, allowed confirming data from literature, that there are

some topographical forms with increased risk of ulcer bleeding were included in this category:

- Prepyloric gastric ulcers (30 cases), posterior face of the body stomach ulcers, usually penetrating the pancreas (25 cases) and small ulcers bends, located at the gastric angle (50 cases)
- Postbulbar duodenal ulcers (30 cases) or bulbar, located on the posterior duodenal bulb (73 cases)
- Postoperative anastomotic ulcers (6 cases).

Diagnosis of gastro-duodenal ulcer bleeding respected classical algorithm of upper gastrointestinal bleeding diagnosis, necessarily going through the following stages: positive diagnosis of GI bleeding, the diagnosis of severity, evolving diagnosis and etiologic diagnosis.

Positive diagnosis H.D.S. was based on two categories of clinical signs: signs of exteriorization of bleeding (haematemesis and / or melena) and signs of hypovolemia and acute anemia. Haematemesis, more frequent in gastric than in duodenal ulcers (28.6% and 19.4%) suggested greater bleeding usually conducted rapidly, fistula as a vascular source of bleeding, melena (45.3% of 63.7% of gastric ulcers and duodenal ulcers) was the usual form of exteriorization, report haematemesis / melena being 1 / 1, 5 with gastric ulcer and third, 27 in the duodenal ulcer and haematemesis + melena association was found in 46.6% of stomach ulcers and bleeding in 34.8% of duodenal ulcers. Severity of bleeding (major criterion guiding therapeutic attitudes) assessed by a severity scale of its own, used in Craiova Surgery, showed that over 50% of cases of serious bleeding were average (110 cases = 35.48%) and high (83 cases = 26.77%), in almost equal proportion for the two forms of ulcer topography, were 29.03% and 7.74% mild bleeding severe haemorrhage sanghină mass loss that exceeded 1500 ml.

Evolutionary diagnosis of bleeding was established on clinical and biological criteria: 257 (82.9%) stopped bleeding cases under conservative medical treatment and in 53 (17.1%) cases of continued bleeding requiring surgical haemostasis. Peptic ulcer (27.28%) and gastric ulcer (20.67%) provided the largest number of cases with favorable evolution, which required surgical hemostasis.

Certainty etiologic diagnosis was given Targeted laboratory investigations (digestive endoscopy and / or gastro-duodenal Barite radioiodine. Upper GI endoscopy, provided data on: location of ulcer, current bleeding intensity defining character circumscribed, disseminated or multiple of bleeding and allowed the identification and appreciation of the bleeding stigmata resângerare classified as Forrest. 274 (88.38%) patients were investigated endoscopically and classified in the classification as Forrest: Forrest 94 I 59 123 Forrest Forrest II and III. radioiodine gastrointestinal Barite November-ulcer was used only in cases where endoscopy could not be tolerated by patients, the best time of the examination was 48-72 hours after stopping the bleeding.

Treatment of gastro-duodenal ulcer bleeding is complex medical and / or surgery and followed two major objectives: stopping the bleeding and to offset losses. Conservative medical treatment is mandatory and any attempt he begins

therapy, may be the only method or an adjunct therapy and surgical treatment was performed in all cases where a standard scheme, which included therapy and rebalancing volemică hemodynamic therapy compensation Hematological (blood transfusion and / or packed red cells from 147 to 47.41% of patients), antacid medication, hemostatic,

Endoscopic hemostasis was practiced in a number of 69 (22.25%) patients: injection of adrenaline in 65 cases, with two failures and electrocoagulation in four cases.

Evolution patients confirmed the literature, that stops bleeding in most cases by conservative medical treatment, 82.91% of patients responded favorably conservative therapy. But the response was uneven for different anatomopathological forms of ulcers. Thus, the best response to conservative therapy of duodenal ulcer (87.25%), followed in order by gastric ulcer (79.4%) and ulcer relapse after surgery (72.73%).

Surgery (surgical hemostasis), invasive therapeutic method, aggressive, of necessity, was indicated in 53 cases (17.09%) when conservative therapy has failed. Tactical option was for one of two categories of surgical procedures: 24 operations that provide only hemostasis (suture ulcer or hemostasis in situ, excision of gastric or duodenal ulcer) and 29 co-operation aimed at achieving hemostasis and therapeutic gestures etiopathogenic visa .

The postoperative evolution was good in 75.47% (40) of cases, in 13 cases (24.53%) we recorded the following postoperative complications: fester ± eviscerație 8 cases of blunt duodenal fistula a case, entero-mesenteric infarction in 2 cases , one stroke case, a diabetic coma case. We recorded three deaths, which represents 5.60% of postoperative mortality and overall mortality of 0.96%.

Ulcer perforation was found in 256 cases, only occupying the second place (42.03%), surpassed by bleeding ulcers, although the literature states that a primary progressive ulcer complication. The average incidence of 35 cases per year, with clear predominance of male (sex ratio = 6.31 / 1), presented significant differences between the two types of ulcer (4 / 1 for stomach ulcers and nearly 9 / 1 for the ulcer). Ulcer perforation can occur at any age maximum incidence being within decades 4 and 5 for duodenal ulcers, with travel to five and six decades for stomach ulcers. The presence of risk factors (47 cases, chronic alcohol consumption, smoking 33 cases, the combination of smoking and alcohol consumption in 60 cases of NSAIDs in 12 cases) was reported in over 50% of cases (152 = 59.37%) .

Ulcer perforation occurred as first symptom in 121 cases (41.98%), known to ulcers in 73 (29%) and dyspeptic syndrome in patients with ulcerous type (42 patients) or nonspecific (20 patients), without confirmation by investigation Targeted laboratory.

Perforation was sudden onset, and onset-admission interval was between 30 minutes and several days (maximum five), most patients (167 = 65.23%) presented to the emergency department less than 6 hours after onset of painful symptoms . Clinical syndrome of peritonitis was dominated by pain, present in all cases in which vomiting was added (161 = 62.8%), stopping bowel (136 cases = 53.12%) and hiccupping (75 cases = 29.29%). Physical examination provided

useful general and local signs of peritonitis and positive diagnosis etiological supposition of perforated peptic ulceration: belly property (181 to 70.7%) or with reduced mobility (75 to 29.29%), generalized muscle contracture (193 to 75.39%) or localized (63 to 24.60%), liver matității loss (99 to 38.67%, Matita travel on the flanks (91 to 35.6%), sensitivity and fluctuența Douglas (68-26 56%).

Simple abdominal radiography, performed in all cases showed pneumoperitoneul subdiafragmatic 172 single or bilateral (67.18%) cases: 27 (61.36%) stomach perforations, ie 145 (68.39%) duodenal, in 32.81 % of simple abdominal radiography did not reveal pneumoperitoneului without thereby invalidating the diagnosis in the context of other clinical evidence. Abdominal ultrasound, performed in 19 (22.61%) patients without a routine exam, obiectivează fluid in the peritoneal cavity and helps establish the diagnosis in cases with suggestive clinical picture but without pneumoperitoneum.

Peritoneal puncture I used it in a few cases (12 = 4.68%), with uncertain diagnosis, the remainder, the diagnosis being cut by clinical examination and other laboratory investigations.

Except a few cases (perforation within 2 hours of onset in elderly patients, bran, with high surgical risks) that may tempt a conservative treatment method after Taylor-Wagensteen, surgery is the main therapeutic options in gastrointestinal ulcers -perforated duodenal ulcer. Tactical surgeon has a choice to solve only complication (and ensuing perforation - peritonitis) and concomitant association of an operation to raise the ulcerative lesions and ulcers to break the pathogenic mechanisms. Option for one of two therapeutic attitude depends: Morphological characters of ulcer (topography, size, morphological reshuffle side, etc..)

Peritonitis characters and terrain age and the patient (age, general condition, significant comorbidity with major vital risk, etc..).

In our study group, all patients were operated, and critical evaluation of surgical treatment of peptic ulceration has been analyzing data on preoperative preparation, anesthesia, surgery their actual (intraoperative exploration, tactics and surgical technique), postoperative treatment , Postoperative morbidity and mortality.

Laparoscopic exploration is essential and time is actually therapeutic decision, because according to its outcome, the surgeon will choose tactics and surgical technique. In the study we followed the following information provided by intraoperative exploration:

- Morphology ulcer: topography, size of perforation, anatomic-pathological forms, local morphological reshuffle. In duodenal ulcer, location of choice was the perforation of duodenal bulb front - 209 (81.64%). In gastric ulcer, perforation of the stomach was distributed in all segments, most often interested in perforation of ulcers prepiloric (18 = 40.9%), followed in order by those of the previous face (14 = 31.81%), small curvature (8 = 18.18%), subcardiale (2 = 4.54%) and upper back (2 = 4.54%). Over 80% of cases had small perforations (126) and medium (91), large holes and belonging to high gastric ulcers (24.99% versus 13.2% of duodenal ulcers).

- Assess the type of peritonitis was one of the key moments in the therapeutic

decision. 167 (65.23%) were diffuse peritonitis chemicals encountered in young patients operated within 6 hours after onset, with small perforations and ulcers suplii walls. 65 patients (25.39%) had purulent peritonitis bilio-purulent fluid, cloudy, in large, exceeding 1,000 ml, 47 (18.35%) were generalized peritonitis with peritoneal flowed freely and 18 (7.03 %) localized purulent peritonitis (or strictly supramezocolic subhepatic). 24 (9.37%) were purulent peritonitis old occlusive stage, frankly purulent fluid in large quantities (over 1,500 ml), with multiple thick membranes cloazonări false, true peritoneal abscess. In all cases, regardless of the shape and length of peritonitis, peritoneal fluid was collected for bacteriological examination.

In the surgery itself, therapeutic attitude has changed considerably over the past 20 years, currently the pathogenesis of ulcer links can be attacked by conservative treatment methods (antiselector treatment and eradication of HP), closing the perforation and peritonitis treatment is considered the attitude of choice, with favorable results and stable remote. Following this trend, almost half of cases (116 = 45.31%) operation was to secure the suture perforation epiplonoplastie (Graham patch), carried out by fever (96 cases) or laparoscopic (20 cases). The process, once aimed primarily duodenal ulcers has been extended to some stomach ulcers (16 = 36.63%), ulcers usually prepiloric, small, flexible edges and chemical peritonitis.

Ulcerocexcizia (31 cases) followed by therapeutic option piloroplastie was young patients without risk factors in perforated duodenal ulcers located on the front of the bulb or prepiloric gastric ulcers. Vagotomieii combination makes this one with the visa process etiopathogenic, this therapeutic option was chosen for 65 patients (25.39%) 7 58 gastric ulcers and duodenal ulcers bulbar prepiloric earlier.

Distal gastric resection (44 cases = 17.18%: 16 gastric and 28 duodenal ulcers) is now reserved for the principle of gastric ulcer type I and IV and Johnson exceptionally duodenal dual localization, or a complication that occurs already perforation existing (penetration, stenosis) or while bleeding.

Regardless of the type practiced operation, the second major objective was topical treatment of peritonitis and toilet consisted of thorough peritoneal cavity and wide drainage of all areas of the peritoneum latch (subhepatic, Douglas laterocolic).

209 (81.64%) patients had a simple postoperative evolution and was discharged after seven days on average after surgery.

Postoperative morbidity was 20.31% (52 patients). Largest share of immediate postoperative complications belonged to local complications (38 cases = 14.83%), most of suppurative complications (26 = 10.15%) while specific complications of gastroduodenal surgery were found almost exceptional 4 anastomotic fistulas, 2 suture stenosis, an HDS Postoperative intestinal occlusions 2 and 3 haemoperitoneum early, complications that required reintervention in eight cases. General complications (14 cases = 5.46%), were all serious complications: myocardial infarction, pulmonary thromboembolism, pleuro-pulmonary complications, the majority being responsible for death. Postoperative mortality rate was 2.34% (6 deaths), causes of death, acute

necrotizing pancreatitis was established necrotic postoperative one case, myocardial infarction in 2 cases and 3 cases of pulmonary thromboembolism. Chronic uncomplicated gastroduodenal ulcer is an exceptional presence in surgical clinics (18 cases) and incidence of chronic progressive complications (penetration and / or stenosis) decreased dramatically in recent years (26 cases = 4.06%) with the introduction of antisecretory therapy and eradication of *Helicobacter Pylori*. Analysis of 44 chronic gastroduodenal ulcers complicated by stenosis ± penetration has not confirmed the literature: maximum within 5-7 decades, net predominance of male (sex ratio = 6.5 / 1) and the constant presence of known risk factors (alcohol, coffee, smoking) in over 50% of cases. Topographic, 32 were duodenal ulcers (13 uncomplicated and 19 complicated chronic ulcers with penetration and / or stenosis, a tooth ulcer anastomotic stenosis) and 12 gastric ulcers (5 uncomplicated ulcers 4penetrante in the pancreas and three prepiloric stenosis). Upper GI endoscopy (30 cases) and / or radioiodine Barite gastro-duodenal (14 cases) confirmed the diagnosis. Surgery was the primary therapeutic option (39 patients = 88.63% operated), surgical indication was imposed suffering ulcerative age (over three years in all operated cases) and occurrence of complications (stenosis and / or penetration) that no longer respond to conservative medical treatment.

Regarding the choice of surgical tactics and technique, there were differences between gastric and duodenal ulcers. In gastric ulcer (10 cases operated) operation was elective gastric resection 2 / 3 with ulcerative lesion lifting and restoring digestive transit through the gastro-duodenal anastomosis termino-terminal Pean type Billroth I (9 cases), in one case, subcardial gastric ulcer was performed a subtotal gastrectomy with gastro-jejunal anastomosis of the Roux Y. In duodenal ulcer stenosis, choice of operation must take into account the part of the current therapeutic concept, opting for a surgical procedure to minimize interference and denervation anatomical gastric (vagotomy gastroenteroanastomoză supraselectivă and respond best to achieve this) but also of profound morphological reshuffle duodeno-bilio-pancreatic region, carrying out so-called "difficult duodenum, which involves more surgical experience and maturity. 19 patients were operations, surgical procedures are: vagotomy + a gastric bypass procedure (PTT Jaboulay 1 and GEA 3) in four cases, three cases hemigastrectomie vagotomy with gastric resection and two thirds in 12 cases, with restoration of digestive transit Pean manner in nine cases Hofmaister-Finsterer in one case and in two cases Francais-Dubois [147, 148, 149].

Evolution was favorable in 38 (97.43%) cases. I made an anastomotic fistula, complicated with acute pneumonia development that led to death, postoperative morbidity and mortality rate being 2.27%.

Conclusion:

- The design etiopathogenic and current therapeutic, surgical complications are reserved acute progressive (perforation and bleeding) and chronic (stenosis / Penetration) and uncomplicated ulcers with exceptionally long evolution and lack of response to conservative therapy.
- Treatment was predominantly conservative (82.91%) for bleeding

gastroduodenal ulcers and perforated ulcers and excluding surgical predominantly surgical (88.63%) for complications of chronic progressive stenosis and / or penetration.

- Indication for acute surgical complications, according to the literature, therapeutic option for surgical procedures has been adopted to tackle complications (hemostasis in situ suture perforation or peritonitis ulceroexcizie with piloroplastie + treatment), with the conservative medical therapy to attack the pathogenic links disease.