metacarpal bone distraction device shown imposition developed clinic.

2. The use of MLC can achieve solid fixation of bone fragments during the treatment period, sufficient for the early development of movement in the adjacent joints and contributes to a significant reduction in terms of hospitalization and total disability. Use of BWW will shorten patient treatment for all kinds of damage in 2 times and total disability period of 4–5 days.

3. Surgical interventions carried out at the turn of the distal end of the metacarpal bones, must be accompanied by a complex post-operative rehabilitation.

4. The application of distraction apparatus for treatment of fractures of the metacarpal bones of the hand, allows you to get excellent and good outcomes in 83.1% of patients, which gives reason to recommend it for widespread use in the practice of medical institutions.

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Khakimov Murod Shavkatovich,
Doctor medical sciences, professor.
Head of the surgery department of Tashkent medical academy
Adilkhodjaev Askar Anvarovich,
Doctor of philosophy
Assistant of the surgery department of Tashkent medical academy
E-mail: askar1981@mail.ru
Yunusov Seydamet Shevketovich,
Subintern of the surgery department of Tashkent medical academy

Epidemiological and etiological aspects of genesis of periampulary tumors

Abstract: Purpose: Statistical data of tumors of a periampullary zone are presented in article. Among tumors of this localization the head of the pancreas (62–69.7%) is surprised most. Among the etiologic factors smoking can be taken for granted the factor twice increasing risk of a disease. The share of hereditary factors and the germinogen of mutations is found in 5–10% of patients. Direct influence of consumption of coffee and alcohol isn't considered

proved, and the previous diseases as pancreatitis and diabetes, make only a small contribution (4%) to risk of development of this heavy illness.

Keywords: periampullary tumors, epidemiology, prevalence, incidence frequency, mortality.

Periampulary tumors (PAT) in the last decade has become the leading cancer in the most industrialized countries, including Uzbekistan [1; 6].

Thus, according to Dolgushin B. I. (2008), Patyutko Y. I. (2013) PAT is 15% of all malignant neoplasms of the gastrointestinal tract, and tends to increase [35; 36; 45], and in the past 30 years the mortality has increased by 10–12 [4; 60; 69].

More than ten thousand people die from this disease in Western Europe every year, the same pattern is observed in Japan [22; 55; 56].

Among PAT tumors of the pancreatic head have the most incidence and explicit 62–69.7% of tumors of the periampulary zone (PAZ). Cancer of major duodenal papilla rank as the second incident and found in 12,7–30% cases, the cancer of the terminal part of choledoch observed in 12,8–15,1%. Duodenum have rare tumor affect5, accounting 2.4–3% of all the PAT [5; 13; 23].

The mean value rate of incidence pancreatic cancer (PC) in the world compound 10.4 per 100 thousand of population for males and 7.1 per 100 thousand in females [11; 34; 37], and the incidence of pancreatic cancer in the world is uneven. For example, among Afro-Americans the incidence is higher than in other population. Perhaps this is due to a genetic inability to inactivate carcinogens foods [2]. On the other hand, the fact of low incidence of pancreatic cancer in the African continent remains obscure. A possible answer to this phenomenon lies in the study of environmental factors. Overall, the incidence is higher in developed industrialized countries than in developing countries [62].

Among pancreatic localization over 60% of tumors are the tumors of the head. Cancer of the pancreatic head (CPH) often affects people of elder group, men 1.3–1.5 times more likely than women. The medial age of men compound 63.6 years and women — 66.5, according to by Siriwarden A. K. (2014) [54; 68].

According to the American Society of Surgeons, 37,170 of new CPH cases registered in 2013, with almost the same number among men and women (18830 and 18340 respectively) [25; 66; 67; 76].

In Japan and England, the rate of incidence in 2013 was 16 per 100 thousand of population [39], in Southern Europe this figure was 2.2 patients, in Asia-Pacific region — 6 patients, and in Nordic Europe — 11–12.5 cases per 100 thousand of population [42; 64].

The statistical data over the past years shows a steady increase in mortality from CPH, with 9th rank among all tumors, and 4th place among tumors of the gastrointestinal tract, and less in gastric cancer, colon and rectum [7; 26; 39]. Most sources devoted to the study of epidemiology of CPH highlights the sad fact is that almost equals the incidence of mortality. Such a ratio is not described for other tumors [9].

In the USA and Japan among the causes of death takes 4–5 of CPH place after lung cancer, colon cancer, breast cancer and prostate cancer [70; 73].

In Europe, as there is a high mortality rate: 10.8 for men and 5–7 women per 100 thousand of population [32]. In Russia from CPH every year die more than 13 thousand people, among the men attain 10 deaths per 100 thousand of population, ranking 6th among women, the figure 8.1 per 100 thousand of population, taking 8th place in the statistics of malignant neoplasms [3; 10; 34].

Cancer of the major duodenal papilla (cancer of Vater's papilla) in the structure of cancer incidence compound 0.5–3% of all malignant diseases of the gastrointestinal tract. Among PAT cancer of Vater's papilla found in 12.7–30% [19; 41; 49]. Morbidity with cancer of Vater's papilla compound 0.34 per 100 thousand of male population and 0.25 per 100 thousand of female population [63]. Cancer of Vater's papilla in men of working age are 2–3 times more often than women [65].

Cancer of the terminal part of choledoch (CTPCh) compound 2,8–4,6% of all malignancies and 15,3–16% of malignant tumors of PAZ [31]. According to foreign authors, the standardized incidence rate for cancer TPCh compound 0.67 per 100 thousand for men and 0.45 per 100 thousand for women [25; 30; 38]. According to Espinoza E., Hassani A., Vaishampayan U. (2014), the incidence of cancer of this localization of both men and women is the same [29]. There is no statistical data obtained for the TPCh cancer in Uzbekistan.

Primary **cancer of duodenum (CD)** is extremely rare (according to different authors — 0,6–6,1% of tumors of PAZ) and compound 0.3% of all tumors of gastrointestinal tract [8; 33; 52]. According to Edge S. B. (2010), Terada T (2012) CD comprise 0.04–0.5% of all the tumors of the gastrointestinal tract, 3.1% of intestine tumors and 25.4–50% of all tumors of the small intestine, equally frequent in men and women older than 50 years and almost not detectable at a young age [56].

It should be noted that the PAT is a cancer disease with severe course. Resectability often do not exceed 20%, hospital mortality among radical surgery 10–15%, and five-year survival rate — 25–30% [21].

Etiological background of development of the periampulary tumors. Genetic predisposition is one of the main causes of PAT [1; 7; 61]. PAT are more often in the elderly, in connection with the observed growth in frequency with the trend to increase the life expectancy in developed countries [18].

Thus, according by De La Cruz MS (2014), risk factors for CPH include the family history, smoking, chronic pancreatitis, obesity, diabetes, alcohol abuse, as well as possible dietary factors [25].

Moreover, some authors proved the correlation between endoscopic papillosphincterotomy (EPST) and development of CTPCh [14; 24; 57]. The reason for this is stasis and reflux of duodenal juice and pancreatic in the TPCh that possible lead to the formation of intestinal metaplasia of the epithelium and the development of adenocarcinoma [50; 72]. To confirm this Sharifiev S. Z. (2010) was described cases of carcinoid TPCh in patients after orthotopic liver transplantation for primary sclerosis cholangitis and multiple strictures of the bile ducts [12; 61].

Molecular and genetic studies carried out in the world prove different frequency of occurrence PAT depending on the population. Thus, patients in China are likely to have distinct expression of other K-ras and p53 genes [22; 27; 48]. Differences in the expression of these genes may be different survival rates and morbidity in Afro-Americans. In Japan, the mortality rate among men from CPH in 2012 was 1.7 times higher than in women [58]. These data may indicate that hormonal factors may be involved in the development and aggressiveness of CPH.

International Agency for Research on Cancer (IARC) has classified smoking cigarettes as a proven carcinogen pancreatic cancer (IARC, 1986). Under the auspices of IARC multicenter study using a case-control techniques in 5 regions of the world to illustrate the effect of smoking on the risk of pancreatic cancer [36]. This integrated study was conducted in centers in Australia, Canada, Netherlands and Poland. All centers used a common protocol and questionnaire and performed it so that it became possible to carry out a joint analysis. The study included 823 cases of smoking and 1,679 cases of population control. Cigarette consumption was established by a detailed questionnaire, which included all of the information about the frequency of smoking in each time period [62].

All centers showed a clear increase in the risk of disease of PAT depending on the number of cigarettes smoked and the pooled analysis of all data revealed statistically highly significant dose-dependent effect of smoking on the PAT. In the most severe smokers (more than 318 600 cigarettes in their lifetime), the relative risk was 2.7 (95% CI 1,95–3,74). These studies also showed that only smoking for 15 years or more increases the risk of cancer [44; 53; 74]. Extensive propaganda against smoking reduced the incidence of PAT in the USA population at the beginning of the 20th century.

Numerous association studies of diet and risk of PAT were indicated worldwide. Presumably, the 20% of the cases were associated with dietary factor. Presumably, the greater the total calorie intake, the higher is the risk of PAT. Increased nitrate content in food leads to the formation of nitrosamines. The use of vitamins and antioxidants should theoretically reduce the risk of cancer. However, the study [40; 59; 76] is not set a protective action of α-tocopherol and b-carotene on the development of PAT for a 5–8-year period for the group observed. Also, do not set the relationship between folic acid and cancer of the pancreas. Possibly, a protective effect of vitamins and antioxidants significantly more evident with other types of malignancies and for longer use.

Endocrine system plays an important role in ensuring adequate immunological reactivity to tumor growth. A number of hormones is one of the most important parts of regulation of the immune reactivity of the organism and can cause both immunosuppression and stimulation of tumor tissue growth and its suppression. In modern experimental oncology no effective information models that reflect the maximum possible range of multidirectional interactions of the immune and endocrine systems in the dynamics of tumor growth.

However, most studies on the effects of vitamins and food consumption of fruit [46; 51; 74; 76], citrus fruits, vitamin C has a protective effect. Particularly interesting is the fact that natural citrus identified agents that are inhibitors of K-ras oncogene [15; 28].

Thus, the influence of dietary factors on the development of PAT attracts attention. It is known that the carcinogenic effects of many foods and eating habits may manifest themselves in several decades [75; 141].

The proportion of hereditary factors in the development of PAT is about 5–10% of all cases. To date, found that the gene BRCA2, one of the genes responsible for hereditary breast cancer is associated with the development and PAT and CPH. BRCA2 gene is considered to be a tumor suppressor, responsible for DNA repair. Mutation of this gene was found in both sporadic and hereditary CPH [20; 47].

Currently underway are numerous studies on genetic polymorphism on the development of cancer varying etiology. In particular, the role of the genes responsible for detoxification of carcinogens in products of smoking. The presence of an individual «favorable» genes may play a protective role. In this context, we investigated a genetic polymorphism of cytochrome P-450, N-acetyltransferases, glutathione-S-transferase, uridine-5-diphosphate glucuronyl. Noteworthy reports of the effect of acetylsalicylic acid and cyclooxygenase 2 in the risk of developing prostate cancer and PAT [16; 17; 43; 71].

Thus, speaking of Epidemiology of PAT, we can say the following: a clear correlation of risk factors and the development of PAT is found in certain parts of the diseased. Smoking can be considered proven factor doubles the risk of disease. The proportion of hereditary factors and germ cell mutation is found in 5–10% of patients. The direct influence of alcohol and coffee consumption is contested. Such prior diseases such as diabetes and pancreatitis, makes only a small contribution (4%) to the risk of PAT.

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Shadjalilova Mukarram Salimjanovna,
Доцент Ташкентского Медицинского Педиатрического Института,
Республика Узбекистан
E-mail: evovision@bk.ru

Clinical characteristics and principles of treatment of patients with enteric infections caused by clostridium difficile

Abstract: The risk factors and the development of diarrheal and intoxication syndrome in patients with intestinal infections caused by Clostridium difficile is an early irrational use of antibiotics, prolonged hospital stay as a source of nosocomial infections, as well as age.

Keywords: Intestinal infections, intoxication syndrome, diarrhea.

At the present stage the problem of microbial ecology associated with the effect of antibiotics on individual normal microflora of the human body is quite acute. With violation of the microecology due to extensive and occasionally unreasonable use of antibiotics is associated widespread caused by Clostridium difficile, clinical spectrum of symptoms that varies widely — from the carrier state and the very short-term passing of diarrhea until development of pseudomembranous colitis [1; 2; 5].

It was found that the toxins produced by these bacteria are involved in the pathogenesis of antibiotic-associated diarrhea and is currently considered as the most probable cause of colitis and diarrhea in children. All patients with diarrhea associated with antibiotics flowing with intoxication and leukocytosis, the occurrence of acute diarrhea should be associated with C.difficile. In samples of stool C.difficile cells remain viable at 5 °C to 10 days at 25 °C up to 4 days.

One of the features of C.difficile is the production of heat labile complex exotoxin consisting of a cytotoxin (toxin B) and enterotoxin (toxin A) with said complex binds toxic pathological changes in intestinal mucosa of the patient: ulcer formation and false-membranous colitis.

Clostridium difficile causes of pseudomembranous colitis in 100% of cases. Clostridium difficile intestinal infection occurs in approximately 50% of newborns. A pathogenic property of the pathogen does not occur until the end of the first year of life due to lack of or underdeveloped intestinal receptors for the toxins produced by them. At the same time, asymptomatic carriage of Clostridium difficile detected in a certain part of the adult population — 1–3% in Europe and 15% in Japan. In our country, a number of reasons, and primarily due to the lack of appropriate laboratory facilities, diagnosis of infections caused by Clostridium difficile is absent and its frequency may be judged only on the basis of individual publications.

Purposes. The purpose is study of clinical features of intestinal infections in children caused by Clostridium difficile.

Materials and methods. Our systematic study of the etiology of acute intestinal infections in children for the period of 2005–2012 years based on studies of 225 sick children aged 2 months to 3 years. The material for the study were samples of faeces. The study was conducted using the polymerase chain reaction (PCR) and bacteriological methods. Diagnosis by PCR analysis was installed in all cases. Of these, 14 (38.8%) children were diagnosed on the basis of bacteriological tests and 32 (88.8%) children on the basis of serological (ELISA).

The criteria for assessment of the severity of the disease were: the acuteness of infection, the severity of toxicity and exsicosis, duration of temperature reaction and gastrointestinal disorders, the degree of involvement in the pathological process of the cardiovascular and central nervous system, blood counts and coprogram. Given these criteria of 36 examined patients were diagnosed with moderate form in 24 (76.6%) and heavy in 12 (33,4%).

To determine the causative agents of acute intestinal infection in this work first time we have used PCR.

Observed patients before admission to hospital had been treated with antibiotics, bacterial preparations received on the set in the history of various degrees and kinds of intestinal dysbiosis. These children have been carried out paraclinical methods of examination, including the study of intestinal microflora.

Results and discussion.

According to the results of research Clostridium difficile is found in 16% of cases of children with acute intestinal infections. The average age of patients caused by Clostridium difficile was 13,7±1,35. Thus, in the age group 1–2 years among identified an acute intestinal infection predominated clostridial diarrhea. In this group of patients Clostridium difficile is the leading causative agent of an acute intestinal infection causing about half of all diagnosed cases of etiologically undiagnosed intestinal infections.

Our results showed that the infection is significantly more common in children younger than 2 years (P>0,05) (Table 1).