



Revista Latinoamericana de Hipertensión
ISSN: 1856-4550
latinoamericanadehipertension@gmail.com
Sociedad Latinoamericana de Hipertensión
Venezuela

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Karpachev, Alexander A.; Soloshenko, Alexander V.; Kulikovskiy, Vladimir F.; Iarosh, Andrei L.; Gostishev, Victor K.; Frantsev, Sergey P.; Oleynik, Natalya V.; Gnashko, Anjela V.; Alkanany, Edrees

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Revista Latinoamericana de Hipertensión, vol. 14, no. 4, 2019

Sociedad Latinoamericana de Hipertensión, Venezuela

Available in: <https://www.redalyc.org/articulo.oa?id=170263002010>

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Endoscopic surgical interventions in the treatment of periampullary cancer

Intervenciones quirúrgicas endoscópicas en el tratamiento del cáncer periampular

Alexander A. Karpachev

Belgorod State University, Rusia

yarosh_a@bsu.edu.ru

 <http://orcid.org/0000-0002-3491-6303>

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id=170263002010

Alexander V. Soloshenko

Belgorod State University, Rusia

 <http://orcid.org/0000-0002-8543-3723>

Vladimir F. Kulikovsky

Belgorod State University, Rusia

 <http://orcid.org/0000-0002-4722-9334>

Andrei L. Iarosh

Belgorod State University, Rusia

 <http://orcid.org/0000-0001-6365-3496>

Victor K. Gostishev

Belgorod State University, Rusia

 <http://orcid.org/0000-0001-9749-7890>

Sergey P. Frantsev

Belgorod State University, Rusia

 <http://orcid.org/0000-0002-6142-0426>

Natalya V. Oleynik

Belgorod State University, Rusia

 <http://orcid.org/0000-0002-2836-8531>

Anjela V. Gnashko

Belgorod State University, Rusia

 <http://orcid.org/0000-0002-2962-2802>

Edrees Alkanany

Belgorod State University, Rusia

 <http://orcid.org/0000-0003-0194-353X>

ABSTRACT:

in this paper retrospective treatment result analysis of 386 patients with periampullary cancer, complications are carried out by obstructive jaundice. Patients were organized into two groups: the first group patients to whom traditional surgical interventions were applied, and entered the second – treated with endoscopic transpapillary surgeries. Cancer of a pancreas head is revealed in 177 patients, cancer of a big duodenal nipple in 145 patients and cancer of the terminal department of the general bilious channel in 64 patients. The duration of bilious channels obstruction was from 3 to 45 days. The presence of obstructive jaundice at this category of patients was considered the indication to performance of endoscopic transpapillary decompressive interventions.

We have shown that at the nonresectable cancer of bodies of a pancreatoduodenal zone complicated by obstructive jaundice, endoscopic transpapillary interventions are the main method of decompression of a biliary tree, thus allowing complete avoidance of traditional surgical interventions.

KEYWORDS: endoscopy interventions, periampullary carcinoma, obstructive jaundice.

RESUMEN:

En este trabajo, el análisis retrospectivo del resultado del tratamiento de 386 pacientes con cáncer periampullar, las complicaciones se llevan a cabo por ictericia obstructiva. Los pacientes se organizaron en dos grupos: el primer grupo de pacientes a los que se les aplicaron intervenciones quirúrgicas tradicionales y entraron en el segundo, tratados con cirugías transpapilares endoscópicas. El cáncer de cabeza de páncreas se revela en 177 pacientes, el cáncer de un gran pezón duodenal en 145 pacientes y el cáncer del departamento terminal del canal biliar general en 64 pacientes. La duración de la obstrucción de los canales biliosos fue de 3 a 45 días. La presencia de ictericia obstructiva en esta categoría de pacientes se consideró una indicación para la realización de intervenciones descompresivas transpapilares endoscópicas. Hemos demostrado que en el cáncer no resecable de los cuerpos de una zona pancreatoduodenal complicada por ictericia obstructiva, las intervenciones transpapilares endoscópicas son el método principal de descompresión de un árbol biliar, lo que permite evitar por completo las intervenciones quirúrgicas tradicionales.

PALABRAS CLAVE: Intervenciones endoscópicas, carcinoma periampullar, ictericia obstructiva.

INTRODUCTION

The widespread introduction in surgical practice of low-invasive technologies for the treatment of patients with diseases of liver, pancreas and bile-excreting channels has allowed to expand considerably possibilities of rendering the surgical help to patients without big surgeries¹¹. However, both traditional, and low-invasive interventions have a range of opportunities, therefore, they demand the differentiated approach and definition of indications and contraindications. Questions of indications and the choice of the most perfect ways of "low-invasive surgery" and also relationship between them and the methods of traditional surgery which are carried out by laparotomy access are in the center of a discussion of surgeons, endoscopists, radiologists, specialists in endosurgery who often express polar opinions and make opposite recommendations^{3,7}. Unfortunately, now no accurate objective criteria are allowing to choose optimum surgical tactics of the differentiated treatment in the treatment of benign and malignant diseases of bodies of a pancreatoduodenal zone, and these literature demonstrate steady growth of the number of patients with this pathology^{1,3,6,7,12}.

MATERIALS AND METHODS

The retrospective analysis of results of treatment of 386 patients with periampullary cancer complicated by obstructive jaundice who were on treatment in the Center of surgery of a liver of a pancreas of the Belgorod regional clinical hospital of the Prelate Ioasaf is carried out. The sample of patients was organized into two groups: the first group patients to whom traditional surgical interventions are applied, and entered the second - endoscopic transpapillary surgeries.

Cancer of ahead of the pancreas is revealed at 177 patients, cancer of a big duodenal nipple - at 145, cancer of terminal department of the general bilious channel - at 64. The duration of obstruction of bilious channels was from 3 to 45 days. The presence of obstructive jaundice at this category of patients was considered the indication to performance of endoscopic transpapillary decompressive interventions.

RESULTS AND DISCUSSION

The analysis of the immediate results of endoscopic and surgical ways of treatment at this group of patients is carried out. The analysis shows the comparable level of postoperative complications ($r=0.096$), at the same time lethality level at traditional surgical interventions is indisputable above ($r=0.013$) (table 1, 2).

Table 1. Complications and lethality in a group of patients to whom traditional surgical interventions were applied

TABLE 1.
Complications and lethality in a group of patients to whom traditional surgical interventions were applied

Operation type	Quantity	Complications	Lethality
Pancreatoduodenal resection	66	24 (36.3%)	4 (6%)
Biliodigestive anastomosis	62	10 (16.1%)	1 (1.6%)
Transduodenal papillitis resection	14	2 (14.2 %)	1 (7.1%)
Other	5	2 (40%)	0
In total	147	38 (25.8%)	6 (4%)

Table 2. Complications and lethality in a group of patients to whom endoscopic surgical interventions were applied.

TABLE 2
Complications and lethality in a group of patients to whom endoscopic surgical interventions were applied.

Operation type	Quantity	Complications	Lethality
Biliary stenting	144	57 (38.8 %)	0
Endoscopic papillitis resection	46	9 (17.7 %)	1 (2.2 %)
Endoscopic suprapatellar choledochoduodenostomia	11	1 (9 %)	0
In total	201	67 (33.5 %)	1 (0.5 %)

We studied the remote results of the treatment of this group of patients. At the cancer of a big duodenal nipple the analysis showed the advantage of endoscopic methods of treatment in comparison with traditional surgical as the big median of life expectancy - respectively is revealed 891.1 and 585 days. The main method of a decompression and palliative treatment at this pathology is the endoscopic papillitis resection through a tumor and biliary stenting which allow stopping jaundice at patients with a high degree of operational risk.

Results of surgical cancer therapy of the head of the pancreas it is better, than in other groups (the greatest median of life expectancy -500 days- at patients after a pancreatoduodenal resection). Results of endoscopic transpapillary stenting and traditional biliodigestive anastomosis a little in what differ from each other (a life expectancy median - 225.7 and 299.0, respectively). At the same time, it should be noted that endoscopic stenting does not demand anesthesia, it is easier transferred by patients, complications (despite their bigger percent) are controllable and easily corrections give in.

The results of different types of expeditious treatment at the cancer of the general bilious channel differed from each other a little, the average life expectancy of patients did not exceed 1 year.

Summary: The main method of a decompression and palliative treatment of patients with the periampullary cancer complicated by obstructive jaundice are endoscopic transpapillary interventions^{8,9}. The transduodenal papillitis resection and biliodigestive anastomosis lost the relevance now and it is

necessary to resort to them only at the impossibility of performance of radical or endoscopic interventions. The carried-out statistical analysis shows the safety of endoscopic transpapillary interventions in comparison with traditional surgical interventions at patients with periampullary cancer.

In the treatment of resectable cancer of a big duodenal nipple the pancreatoduodenal resection as at this operation, the best remote results are noted has to be considered an operation of the choice (our observations the five-year survival was 57.5%). Comparing results of traditional surgical and endoscopic methods of treatment, it is revealed that the cumulative survival more than 50% is observed in a group of patients with a pancreatoduodenal resection, more than 25% in groups of a transduodenal papillitis resection and endoscopic papillotomy. The remote results of palliative treatment of patients also showed the advantage of endoscopic methods of treatment before traditional surgical as after them authentically big median of life expectancy - is observed 891.1 and 585 days, according to ^{2,10}

It is impossible to call the remote results of cancer therapy of a head of a pancreas satisfactory (the greatest median of 500 days is observed in a group of patients after the performance of a pancreatoduodenal resection). Results of endoscopic transpapillary stenting and open biliodigestive anastomosis a little in what differ from each other, however at the same time nobiliary stenting does not demand to carry out anesthesia, is easier transferred by patients, complications (despite their bigger percent) are controllable and easily corrections give in ^{4,5}

Thus, on the basis of the conducted researches it is possible to conclude that at the nonresectable periampullary cancer complicated by obstructive jaundice, and also at patients of advanced and senile age with the heavy accompanying pathology, endoscopic transpapillary interventions are the main method of shunting of a biliary tree, allowing to refuse performance of traditional surgical interventions completely.

CONCLUSIONS

In the treatment of patients with periampullary cancer complicated by obstructive jaundice, methods of expeditious endoscopy are one of the priority methods of diagnostics and treatment. Endoscopic transpapillary interventions at the present stage allow reducing considerably the number of traditional surgeries that, eventually, leads to the reduction of the number of postoperative complications, lethality and improves the quality of life of patients.

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