

Learning Curve of Robotic Total Mesorectal Excision versus Transanal Total Mesorectal Excision - A Single-Center Study

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ABSTRACT

Introduction: Rectal cancer treatment has changed over the last several decades. Total mesorectal excision (TME) has proven to be the gold standard in rectal cancer surgery. Transanal total mesorectal excision (TaTME) and robotic total mesorectal excision (RoTME) for low and mid rectal cancer are implemented to overcome some of the difficulties of the laparoscopic approach. The aim of this study is to show a single-center experience in the learning curves of both RoTME and TaTME.

Material and methods: A single-center prospective study comparing the first 17 consecutive RoTME cases from January 2016 to May 2019 to the first 16 consecutive cases of TaTME from July 2019 to June 2021 was conducted. The difference in the time periods is due to the later implementation of TaTME in the center. All procedures were performed by a single team.

Results: A total of 33 patients were included in the study – 17 RoTME patients and 16 TaTME patients. The groups were homogeneously distributed in terms of patients' characteristics and stage. Comparing the two groups, no statistically significant differences between them were found in terms of complication rates ($p=0.692$), positive circumferential resection margins rates ($p=0.000$), frequency of anastomotic leak rates ($p=0.596$), time from completion of radiotherapy to surgery ($p=0.229$) and time from surgery to ileostomy closure ($p=0.880$). A statistically significant shorter operative time was found in the TaTME group ($p=0.008$).

Conclusion: The learning curve should be considered in all procedures. A structured training pathway for TaTME and RoTME is essential. No differences between RoTME and TaTME in the learning curve were observed in our center.

Key words: TaTME, RoTME, rectal cancer, learning curve

Abbreviations:

TaTME – transanal total mesorectal excision;
RoTME – robotic total mesorectal excision
LaTME – laparoscopic total mesorectal excision;
TME – total mesorectal excision;
CT – computer tomography;
MRI – magnetic resonance imaging.

Original article

CLINICAL SAFETY OF FOCUSED ULTRASOUND SURGERY IN THE TREATMENT OF ADVANCED PANCREATIC CANCER PATIENTS - SINGLE CENTER PROSPECTIVE STUDY

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SUMMARY

Purpose: Our purpose is to study the clinical safety of focused ultrasound surgery (FUS) in the treatment of patients with advanced pancreatic cancer.

Methods: A single-center prospective study was conducted in the period 02. 2013 - 06. 2018 at HIFU department at University hospital St. Marina – Pleven, Bulgaria looking at the postoperative complications after focused ultrasound surgery of advanced pancreatic cancer patients.

Results: 47 patients were included in the study with a III or IV stage pancreatic cancer. The complication rate was 10.6% and no severe complications were observed.

Conclusions: FUS seems to be a safe method of treating patients with advanced pancreatic cancer. Large randomized trials in the area are needed.

Keywords: pancreatic cancer, postoperative complications, High-intensity focused ultrasound

creatic cancer remains a challenge. The golden standard nowadays is surgical resection. Approximately 80% of patients have unresectable disease at presentation [1]. The median overall survival (OS) for III stage patients is app. 6-10 months and for IV stage – 3-6 months [2]. Chemotherapy has not shown to greatly improve the OS rate for patients with advanced pancreatic cancer [2-5].

Focused ultrasound surgery (FUS) or high-intensity focused ultrasound (HIFU) treatment is a novel non-invasive method to treat advanced pancreatic cancer [6-7]. During the past decades it has proven its benefits in treating patients with this disease.

Our aim is to study the clinical safety of focused ultrasound surgery (FUS) in the treatment of patients with advanced pancreatic cancer by a single-center prospective study.

MATERIAL AND METHODS:

A single-center prospective study was conducted in

Rapidly growing vaginal mass: Benign or malignant?

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CASE STUDY

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ABSTRACT

Vaginal leiomyoma is a rare condition. Approximately 300 cases have been reported in the literature so far. We present a case of 47 years old patient with a rapidly growing vaginal myoma which was diagnosed three months after a supravaginal hysterectomy due to uterine myoma and was suspicious for malignancy.

leiomyosarcoma prior to surgical removal of the vaginal tumour is very difficult.

3. What are the implications for research, policy, or practice?




The rapidly growing tumours in the vagina do not have to be malignant but they have to be treated as malignant.

Background

Leiomyomas are smooth muscle benign tumours developing from monoclonal expansion of a single muscle cell, responsive to steroid hormones.¹ Almost 70 per cent to 80 per cent of all women will have fibroids by age 50. It is most common in women between the ages of 35 and 50. Usually it is located in the uterus, but sometimes it can be found in other locations- for example as a primary vaginal leiomyoma. Leiomyoma of the vagina is a very rare entity: approximately 300 cases have been reported in the literature so far.² The benign fibromyoma usually arise from the anterior vaginal wall and the differential diagnosis in these cases must be done with benign neoplasms such as bladder leiomyoma, rhabdomyoma and benign mixed tumour, endometriosis, malignant primary neoplasms such as squamous cell carcinoma, verrucous and clear cell carcinoma, embryonal rhabdomyosarcoma, melanoma, leiomyosarcoma and mixed tumours, secondary neoplasms,

Article

Single-Center Study of Lymphoepithelioma-Like Carcinoma of Uterine Cervix over a 10-Year Period

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Abstract: *Background and objectives:* Lymphoepithelioma-like carcinoma (LELC) is a histological type of malignant tumor arising from the uncontrolled mitosis of transformed cells originating in epithelial tissue. It is a rare subtype of squamous cell carcinoma of the uterine cervix. There are significant differences in frequency, mean age, viral status, and outcomes in Asian or Caucasian patients. *Materials and Methods:* A retrospective study of all cases of lymphoepithelioma-like carcinoma of the cervix at the Clinic of Oncogynecology, University Hospital, Pleven, Bulgaria between 1 January 2007 and 31 December 2016 was performed. All patients were followed-up till March 2019. We analyzed some clinical characteristics of the patients, calculated the frequency of lymphoepithelioma-like carcinoma of the cervix from all patients with stage I cervical cancer, and looked at the overall survival rate, the 5-year survival rate, and the correlation between overall survival, lymph node status, and the size of the tumor. *Results:* The frequency of lymphoepithelioma-like carcinoma was 3.3% for all cases with cervical carcinoma at stage I. The mean age of the patients with LELC was 49.6 years (range 32–67). Fourteen patients (82.4%) were in the FIGO IB1 stage, three patients (17.6%) were in the FIGO IB2 stage. Lymph nodes were metastatic in three patients (17.6%), non-metastatic in 13 patients (76.5%), and unknown in one patient. The overall survival rate was 76.47% for the study period and the 5-year survival rate of the patients that were followed-up until the 5th year (14 patients) was 69.23%. *Conclusions:* Lymphoepithelioma-like carcinoma is a rare SCC subtype, but it could be more frequent among western patients than previously thought. Our results do not confirm the data showing low risk of lymph metastasis and good prognosis of LELC, which is why we think that the treatment in these cases has to be more aggressive than is reported in the literature.



Success Rate and Safety of Totally Implantable Access Ports Placed by the Cephalic Vein Cutdown Technique in Oncological Patients – a Single-Center Study

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Abstract

Introduction: Totally implantable access ports (TIAPs) are commonly used in oncologic patients undergoing ongoing chemotherapy. The methods of choice for implantation are the subclavian vein puncture approach and the cephalic vein cutdown technique, followed by internal jugular vein access and external jugular vein access.

Materials and methods: We analyzed all patients who had a central venous access implanted by a single surgeon at the University Hospital in Pleven between October 2018 and January 2022, with the aim of determining the success rate and safety of the cephalic cutdown technique for placing totally implantable access ports.

Results: 135 totally implantable access ports were inserted in the study period. Median age of patients was 69.2 years (range, 35-86 years). There were 71 (52.59%) women and 64 (47.41%) men. In 7 patients, the tip of the catheter was reported to go at the distal part of the subclavian vein and axillary vein on the ipsilateral side after initial placement and was repositioned under real-time fluoroscopic guidance. Successful placement of a totally implantable access port using the cephalic cutdown technique was reported in 127 patients (94.07%). No postoperative pneumothorax, hemothorax, or vessel injury were reported. One case of surgical site infection was seen on postoperative day (POD) 7. Late postoperative complications occurred in 3 patients with catheter-related bacteremia all after POD 30 (81, 95, and 172 days after the procedure). One patient died.

Conclusions: Totally implantable access ports placed using the cephalic vein cutdown technique can be used safely and with high success rates in oncological patients.

Novel Application of the EK Glove Port for Single-Incision Diverting Sigmoid Loop Colostomy in Advanced Rectal Cancer

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ABSTRACT

Background and Objectives: In patients with obstructing rectal cancers who require intestinal diversion before neoadjuvant therapy, minimizing diversion-related recovery and instituting early chemoradiation are critical to optimizing outcomes.

Methods: A novel, simple, safe, and inexpensive technique was developed for single-port laparoscopic diverting sigmoid loop colostomy in a low-resource environment.

Results: Ten consecutive patients with locally advanced rectal cancer underwent single-port, diverting sigmoid loop colostomy using a novel application of the EK glove port. Operative time averaged 59.5 min (range 40–75 min). There were no conversions to multiport laparoscopy or open surgery. There were no intraoperative or early postoperative surgical complications. All patients started chemoradiation therapy within 1 week of diverting colostomy. No surgical reinterventions were required.

Conclusion: Single-port laparoscopic diverting sigmoid loop colostomy utilizing an EK glove port is a novel, technically simple, safe, and cost-effective procedure, especially applicable to patients with obstructing rectal cancer who receive care in a low resource environment.

Key Words: locally advanced rectal cancer, laparoscopy, single-port laparoscopic, glove port, colostomy.

INTRODUCTION

Some patients with obstructing rectal cancers and other pelvic malignancies require intestinal diversion before initiation of chemoradiation therapy. Operations in which ostomies are created have a high rate of surgical complications compared with other types of common surgical procedures, significant negative effects on quality of life, and ongoing morbidity related to ostomy care.¹ Minimizing postoperative complications and diversion-related recovery are particularly important in patients with advanced rectal cancer who need prompt institution of chemoradiation for optimal outcomes. Intestinal diversion can be accomplished with open surgery, trephine surgery, multiport laparoscopy, single-port laparoscopy, or computer-assisted (robotic) laparoscopy.^{2–6} In their most recent Clinical Practice Guideline (2015), the American Society of Colon and Rectal Surgeons strongly recommends that “when feasible, laparoscopic ostomy formation is preferred to ostomy formation via laparotomy.”¹ For single-incision laparoscopic ostomy formation, there are a number of commercially available and convenient single-

Contemporary challenges of warty carcinoma of cervix - Our experience and review of literature

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RESEARCH

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ABSTRACT

Background

Warty carcinoma of the cervix is a rare subtype of squamous cell carcinoma. In general, it is not as aggressive as the other subtypes, and has a better prognosis.

Aims

The aim of this study was to investigate overall and recurrence-free survival rate in patients with Warty carcinoma of the cervix.

Methods

During the ten year period (2008-2017) in the Clinic of Gynaecologic oncology at the UMHAT - Pleven, Bulgaria were operated 714 cases with cervical cancer, 14 of which were histologically confirmed as a Warty carcinoma. Patients were investigated by retro- and prospective

analysis for overall and recurrence-free survival rate.

Results

Warty carcinoma accounts for 1.94 per cent of all cervical carcinomas, operated in the clinic. The mean age of the patients was 48 years, ranging from 29-72 years. According to the FIGO staging systems for cervix, patients were staged as follows: in stage IB1 - 43 per cent and in stage IB2 - 57 per cent. Despite the high percentage of locally advanced process, only in one case out of all the patients there was local spreading of the lesion towards the uterine cavity and in one case there were metastases in the pelvic lymph nodes. Lymphovascular space invasion was not seen in any patient, and neither were perineural or perivascular invasion.

Conclusion

This report highlights a favourable course and good prognosis of Warty carcinoma of the cervix. It is necessary to reconsider the aggressive surgical treatment and subsequent chemotherapy in women with Warty carcinoma of the cervix.

Key Words

Warty carcinoma of the cervix, survival rate, treatment

Implications for Practice:

1. What is known about this subject?

Warty carcinoma is one of the rare forms of squamous cell carcinoma of the uterine cervix and has better prognosis than usual SCC.

2. What new information is offered in this case study?

Despite the high percentage of locally advanced process

Mesenteric Vascular Evaluation with Pre-operative Multidetector Computed Tomographic Angiography and Intraoperative Indocyanine Green Angiography to Reduce Anastomotic Leaks after Minimally Invasive Surgery for Colorectal Cancer

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ABSTRACT

Background: The aim of this prospective study was to determine the effect of mesenteric vascular evaluation using pre-operative multidetector computed tomography angiography (MDCTA) and intraoperative indocyanine green (ICG) angiography on reducing the anastomotic leak rate of colorectal cancer patients undergoing minimally invasive resection.

Methods: Twenty-seven consecutive patients with colorectal cancer were studied, 18 males and 9 females, average age 69.1 ± 3.9 years. All patients underwent pre-operative mesenteric vascular evaluation using MDCTA with three-dimensional (3D) reconstruction and intraoperative evaluation of perfusion using ICG angiography.

Twelve patients underwent laparoscopic resection (Olympus Visera Elite II OTV-S200) and 15 patients underwent robotic resection (DaVinci Si). Colorectal resection lines and anastomoses were guided by intraoperative ICG perfusion. Postoperative anastomotic leaks were assessed.

Results: Pre-operative MDCTA 3D reconstructions defined the left colic and sigmoid artery anatomy and guided operative planning. The intraoperative ICG angiography resulted in a change of the planned lines of resection in seven patients (26%). The rate of postoperative anastomotic leaks in this study was 0% (0/27), compared to a leak rate of 6.8% at our institution in the preceding two years.

Conclusion: Pre-operative evaluation of mesenteric vascular anatomy using MDCTA with 3D reconstruction and intraoperative evaluation of perfusion using ICG angiography were found to be technically feasible and safe. An appropriately designed study should be undertaken to prove whether it was truly effective at reducing the postoperative anastomotic leak rate in colorectal cancer patients undergoing minimally invasive resection at our institution.

Key Words: Colorectal cancer, Colorectal surgery, Minimally invasive surgical procedures, Anastomotic leak, Computed tomography angiography, Fluorescein angiography.

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EFFICIENCY OF TRAINING COURSES IN LAPAROSCOPIC SURGERY FOR MEDICAL STUDENTS

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SUMMARY:

Purpose: In recent decades, laparoscopic surgery (LS) has become a standard in the treatment of many diseases and is increasingly preferred by patients, therefore the need for specific training. In Bulgaria, there is a lack of regular real-time minimally invasive surgery training for students and young doctors specializing in surgical specialties.

Aim: Our aim is to evaluate the influence and efficiency of extra-curricular laparoscopic surgery courses organized at Medical University of Pleven, Bulgaria and the need for similar courses in medical students' training.

Methods: Anonymous poll in Google forms was sent at least 1 year after the completion of the training course to all of the 60 participants in the courses from 2013 to 2016.

Results: 43% of respondents have become surgical residents at the time they answered the poll. 56% responded that their participation in the training course helped them in the choice of speciality. 72% of respondents believe that after completing the training course, they felt more confident during laparoscopic surgery. According to 65.2%, the learning objectives have been fully achieved.

Conclusions: Starting the LS learning curve in medical school through an additional course is an effective and necessary approach for the rapid and harmonious growth of young surgeons.

Keywords: laparoscopy, training, learning curve, medical students,

INTRODUCTION:

In recent decades, laparoscopic surgery (LS) has become a standard in the treatment of many diseases and is increasingly preferred by patients [1-4]. Many studies show the feasibility and safety of this approach and its superiority regarding postoperative pain, length of hospital stay, intraoperative blood loss, cosmetic effect and quality of life [5]. The wide application of this technique leads to the need for a specific training. Thanks to simulation models and virtual simulators, laparoscopic surgery can be trained outside of the operating room. This avoids the training of young surgeons on patients and provides maximum safety for patients combined with high-quality procedures [6-9]. Recent trend in medical education is speeding up the learning process through basics set in the student years of future surgeons. Nowadays, training on box trainers, cadavers, anaesthetized animals, virtual 2D and 3D monitors, as well as employing virtual reality are being used. The results are directly related to the way of teaching and the presence of mentors, which impose some limitations. A new way to solve this problem is the use of telemedicine [10, 11]. In Bulgaria, there is a lack of regular real-time minimally invasive surgery training for students and young doctors specializing in surgical specialties. Only specialized courses are offered, which are not compulsory in modular training.

Our aim is to evaluate the influence and efficiency of extra-curricular laparoscopic surgery courses for medical students focusing on the learning curve of young doctors and evaluate the need for similar courses in medical students' training.

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Original Article

COMPLICATIONS IN TRANSANAL TOTAL MESORECTAL EXCISION (TATME) – EARLY EXPERIENCE

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Summary

Transanal total mesorectal excision (TaTME) is a trending and promising surgical procedure to treat rectal cancer with oncologically oriented precision. Complication rates are promising after the learning curve is passed. A prospective study on the first 12 consecutive TaTME patients was done. The primary aim was the intraoperative and the early and late postoperative complications rate. One persisting failure as an intraoperative complication was reported: two anastomotic leaks and a ventral hernia as postoperative complications. TaTME is safe in terms of intra- and postoperative complications.

Keywords: rectal cancer, laparoscopic surgery, complications

Is high-intensity focused ultrasound (HIFU) an option for neoadjuvant therapy for borderline resectable pancreatic cancer patients? – a systematic review

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ABSTRACT

Introduction: Pancreatic cancer is with the poorest prognosis of all common cancers worldwide. Despite the advances in treatment the results are poor throughout the different methods. Pancreatic resection still yields the best outcome. However only a quarter of the patients present at operable stage. HIFU is a noninvasive technique that can be used to treat pancreatic cancer.

Aim: The aim of this review is to perform a systematic review on the data about the resection rate after HIFU ablation in patients with borderline resectable pancreatic cancer (BRPC) and the impact of this technique over the oncological results.

Materials and methods: The PubMed and Wanfang databases were searched using keywords: pancreatic cancer, HIFU ablation and high-intensity focused ultrasound. All found articles were reviewed. The systematic review was performed according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) standard guidelines. This study was financially supported by 2019 'Kuan-Ren Elite' Program of 2nd Affiliated Hospital of Chongqing Medical University, China (Grant no. KY2019G019).

Results: The English database search showed 109 papers, of which 3 met the inclusion criteria. The Wanfang database resulted in 110 papers; however, none met the inclusion criteria of the review. From the included studies 97 patients underwent neoadjuvant HIFU ablation ± chemotherapy. Thirty-four patients reached resection (35.1%). In two patients, residual tumor (R) classification was not reported. R0 resection rate in all reported patients is 30.5% (29/95). R1 resection rate is 3.2% (3/95).

Conclusion: HIFU is found to be safe and feasible in locally advanced and metastatic pancreatic cancer with proven downstaging and downsizing effects. Further research on role of HIFU ablation as a neoadjuvant treatment for borderline resectable pancreatic cancer is needed.

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KEYWORDS:

HIFU; focused ultrasound surgery; pancreatic cancer; borderline resectable; systematic review

Introducing clinical protocol for ultrasound-guided high-intensity focused ultrasound ablation of uterine fibroids in patients in Europe, provided from experienced Chinese center-prospective comparative.

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Abstract

Introduction: This study aims to determine whether the Chinese clinical protocol, ultrasound guided high-intensity focused ultrasound (USgHIFU) combined with real-time monitoring using a contrast enhanced ultrasound (CEUS), also applies well in European patients with uterine fibroids.

Methods: Seventy-five patients with 87 nodules of uterine fibroids from China and Bulgaria were treated with USgHIFU from April 2015 to July 2016, in the study. In Group A (Bulgarian) 26 (33 nodules) patients and in group B (Chinese) 49 (54 nodules) patients were included in the study. The same clinical procedure of USgHIFU treatment as well as a follow-up was performed on patients from China and Bulgaria. The general characteristics of the patients, the USgHIFU treatment and evaluation parameters, including; complications, fibroid size, tumor volume, subcutaneous fat size, non-perfused volume (NPV) and shrinkage process, were comparatively studied in Chinese and Bulgarian patients.

Results: There were no significant differences in clinical parameters of Chinese and Bulgarian patients with uterine fibroids, such as vertical, left-right and anterior-posterior size, treatment time, USgHIFU time. After USgHIFU treatment, no complications were recorded in both groups. On the 6th and 12th month after USgHIFU, fibroid nodules shrunk and the NPV was statistically significant compared to NPV before USgHIFU, but there were no statistically significant differences.

Conclusions: The initial results of our study showed that CEUS clinical protocol for real time monitoring of efficacy and quality of the USgHIFU for uterine fibroid treatment that had been used in Chinese centers may also be applicable for European patients.

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Case Report

METASTATIC COLON CANCER IN A PREGNANT WOMAN: A CASE REPORT

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Summary

Colorectal cancer in pregnant women is rare and represents a diagnostic and therapeutic challenge for clinicians. We present a case of a 38-year-old pregnant woman, diagnosed with colorectal cancer and liver metastases during the 29th week of gestation. After clinical evaluation and making the diagnosis, the patient underwent an emergency cesarean section (C-section) and bypass anastomosis between the transverse colon and sigmoid colon. The babies were born healthy without any complications. After recovery, the mother started treatment with chemotherapy, but two months later she died due to the spread of the disease. Cancer during pregnancy is always a challenge for diagnosis and treatment.

Key words: pregnancy, colorectal cancer, chemotherapy

CLINICAL LETTER

Cemiplimab treatment of squamous cell carcinoma in a patient with severe recessive dystrophic epidermolysis bullosa

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Dear editors,

We present a 34-year-old male patient suffering from severe recessive dystrophic epidermolysis bullosa (RDEB) and locally advanced squamous cell carcinoma of the skin (SCC) who was successfully treated with cemiplimab. The RDEB started at birth with recurrent blisters and painful wounds of the skin and mucous membranes after minimal trauma. The diagnosis of RDEB was confirmed by transmission electron microscopy. The disease had a progressive course with chronic wounds and development of "mit-ten" hand deformities. The patient complained of difficult swallowing.





CASE REPORT



Delayed Inguinal Site Metastasis in Early-Stage Endometrial Cancer: A Case Report

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Keywords Endometrial cancer · Inguinal lymph node metastasis · Frequency · Treatment

Introduction

Endometrial cancer is the fourth most common malignancy in women, with more than 60,000 newly diagnosed cases in the USA in 2016 [1]. According to the Bulgarian national cancer registry, endometrial cancer is the second most common cancer in females with share of 8.6% (34.7 cases per 100,000 women) in Bulgaria for [2]. The most common lymph metastatic sites of the endometrial cancer are internal, external and common iliac lymph nodes [3]. The inguinal area is an unexpected primary metastatic or recurrence site for early-stage endometrial cancer.

oophorectomy (TAH and BSO), without lymph node dissection (LND). According to the European guidelines in 1993, a patient with clinical assessment of early-stage endometrial cancer did not undergo LND. Histopathology revealed moderately differentiated (G2) endometrioid adenocarcinoma invading less than 50% of myometrium. Lymph-vascular space invasion (LVSI) and cervical stromal invasion (CSI) were not noted, and immunohistochemistry was not performed since it was not routine at that time. She was staged according to the International Federation of Gynecology and Obstetrics (FIGO) staging system as FIGO IB in 1993 (according to FIGO 2009 used nowadays—FIGO IA). She underwent pelvic radiation therapy of 54 Gy. Follow-up was done at 6, 12, 18, 36 months, and

REVIEW ON ANASTOMOTIC LEAK RATE AFTER ICG ANGIOGRAPHY DURING MINIMALLY INVASIVE COLORECTAL SURGERY

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Summary

Colorectal cancer is the 3rd most common type of cancer worldwide. The most devastating complication after colorectal surgery remains the anastomotic leak (AL). Many techniques have been developed to reduce its rate. One such new method is perfusion angiography using indocyanine green (ICG). A literary search in PUBMED on 1.03.2021 for full-text English articles published between 2014 and 2021 was performed. ICG, colorectal cancer, and angiography were the keywords we used. The review was performed following the recommendations of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines. The literature search yielded 27 results when searching the database of PUBMED with the above keywords. Twenty-one out of 27 identified articles were included. Six were excluded from the analysis – four case reports, one review on the evolution of treating gastrointestinal cancers, and one containing no information on AL rate with ICG. One included article was RCT, sixteen were cohort studies, and four were meta-analyses or reviews. All articles reported a reduction in the anastomotic leak rate. However, the reduction was significant only in nine of them. Anastomotic leak is a severe complication and a subject of extensive research. Perfusion angiography with ICG is a step towards predicting and preventing AL, although it does not guarantee success in all cases.

Keywords: anastomotic leak, ICG angiography, colorectal cancer, minimally invasive surgery

DOI: 10.1515/jbcr-2017-0021**Original Articles**

MACROSCOPIC ASSESSMENT OF TOTAL MESORECTAL EXCISION QUALITY AFTER ROBOTIC ASSISTED RECTAL RESECTION FOR RECTAL CANCER IN BULGARIA: A PROSPECTIVE TRIAL

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Summary

Total mesorectal excision (TME) is a standard surgical procedure for rectal cancer. Robotic surgery has the potential to minimize the disadvantages of laparoscopic rectal resection. Circumferential margin and macroscopic quality assessment of the resected specimen are the major prognostic factors for local recurrence of the disease. The aim of this study was to research the macroscopic assessment of the quality of TME after robotic-assisted rectal resections for rectal cancer performed in a single center. Data was prospectively collected about macroscopic assessment of the quality of TME in thirteen patients after robotic-assisted rectal resections for rectal cancer between 09.04.2014 and 31.12.2016. After all robotic TMEs, a pathologist made macroscopic assessment of the completeness of the mesorectal excision. The quality of TME was complete in 12 cases and nearly complete in one case. The circumferential and distal resection margins were negative in all cases. The mean number of harvested lymph nodes was nine. This study indicated that using robotic surgery for rectal cancer does not lead to worsening the quality of TME. Further studies in this field are necessary.

Key words: rectal cancer, TME, quality of the specimen, robotic surgery

Article

Mucoepidermoid Carcinoma of the Uterine Cervix—Single-Center Study Over a 10-Year Period

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Abstract: *Background and objectives:* Adenosquamous cancer of the uterine cervix is a rare type of cervical cancer with both malignant squamous and glandular components. A very rare subtype is mucoepidermoid carcinoma (MEC), which was first described as a salivary gland tumor. It has been described as having the appearance of a squamous cell carcinoma without glandular formation and contains intracellular mucin. The postoperative evolution of this tumor and the potentially poorer prognosis may indicate an intensification of the follow-up. The objective of our study was to analyze the frequency of mucoepidermoid carcinoma in hospitalized women with cervical cancer, clinical characteristics and prognosis. *Material and Methods:* A retrospective study of all cases of mucoepidermoid carcinoma of the cervix at Department of Gynecologic Oncology, University Hospital—Pleven, Pleven Bulgaria between 1 January 2007 and 31 December 2016 was performed. All patients were followed-up till December 2019. We analyzed certain clinical characteristics of the patients; calculated the frequency of mucoepidermoid carcinoma of the cervix from all patients with stage I cervical cancer; and looked at the overall survival rate, correlation between overall survival, lymph node status and the size of the tumor. *Results:* The frequency of MEC was 1.12% of all patients with stage I cervical cancer in this study. The median age of the patients with MEC was 46.7 years (range 38–62). Four patients (57.1%) were staged as FIGO IB1, and three patients (42.8%) were FIGO IB2. The size of the primary tumor was <2 cm in 2 patients (28.57%), 2–4 cm in 2 patients (28.57%) and >4 cm in 3 patients (42.8%). Metastatic lymph nodes were found in two patients (28.57%), and nonmetastatic lymph nodes were found in five patients (71.43%). There were two (28.57%) disease-related deaths during the study period. The five-year observed survival in the MEC group was 85.7% and in the other subtypes of adenosquamous cancer group was 78.3%. *Conclusions:* MEC of the uterine cervix is a rare entity diagnosis. As a mucin-producing tumor, it is frequently regarded as a subtype with worse clinical behavior and patients' outcomes. Nevertheless, our data did not confirm this prognosis. New molecular markers and better stratification are needed for better selection of patients with CC, which may benefit more from additional treatment and new target therapies.

Keywords: mucoepidermoid cervical carcinoma; adenosquamous carcinoma; survival rate; lymph node involvement

РОБОТИЗИРАНА ПРЕДНА РЕЗЕКЦИЯ НА РЕКТУМА ПРИ ПАЦИЕНТИ С РЕКТАЛЕН КАРЦИНОМ С ИЗПОЛЗВАНЕ НА ИНДОЦИАНИН ГРИЙН ЗА ОЦЕНКА НА ПЕРФУЗИЯТА НА КОЛОНА - ЕДНОЦЕНТРОВ ПЪРВОНАЧАЛЕН ОПИТ.

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204

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Въведение:

Доказано е, че ректалните резекции за рак на ректума имат най-високи нива на инсуфициенции на анастомозата в сравнение с всяка операция за резекция на пациенти с рак на дебелото черво. Оценката на чревната перфузия с помощта на индоцианин грийн показва своята осъществимост и безопасност. Първоначалните резултати изглеждат обещаващи по отношение на намаляване на инсуфициенциите на анастомозата.



АНАЛИЗ НА АКТУАЛНОТО СЪСТОЯНИЕ В ДИАГНОСТИКАТА НА РАКА НА ГЪРДАТА В БЪЛГАРИЯ ЧРЕЗ ИЗПОЛЗВАНЕ НА СОФТУЕР ЗА АНАЛИЗ С ИЗКУСТВЕН ИНТЕЛЕКТ

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ANALYSIS OF THE CURRENT STATE OF BREAST CANCER DIAGNOSIS IN BULGARIA USING ARTIFICIAL INTELLIGENCE ANALYSIS SOFTWARE

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РЕЗЮМЕ

Ракът на млечната жлеза (РМЖ) е социално-значимо заболяване. Според GLOBOCAN за 2020 РМЖ е на първо място в света по честота на нови случаи при двата пола (11.7%) и на четвърто място по смъртност (6.9%). Според последните данни от Българския раков регистър от 2015 г. РМЖ заема първо място по честота на нови случаи при жени с 26.8% и е на първо място по смъртност при жени с 17.4%. Анализираха се данните от януари 2019 г. до май 2023 г. на Национално ниво. Използва се електронната информация, подавана от болниците след дехоспитализация на пациентите, достъпна в платформата Danny. Това е софтуерно решение, което обединява и хармонизира различни източници на данни от онкологични, кардиологични и други практики чрез използване на изкуствен интелект. За периода са извършени общо 12 989 оперативни интервенции по КП 193 и КП 194 с диагноза на пациенти МКБ C50. При 8 673 пациенти е извършена биопсия на формация, както следва: дебелоиглена биопсия при 4

SUMMARY

Breast cancer (BC) is a socially important disease. According to GLOBOCAN for 2020, breast cancer ranks first in the world in the incidence of new cases in both sexes (11.7%) and fourth in mortality (6.9%). According to the latest data from the Bulgarian Cancer Registry from 2015, BC ranks first in the incidence of new cases in women with 26.8% and is first in mortality in women with 17.4%. Data from January 2019 to May 2023 on a national-wide basis were analyzed. Electronic information submitted by hospitals after patient dehospitalization available on the Danny platform by Sqilline is used. It is a software solution that brings together and harmonizes diverse data sources from oncology, cardiology, and other practices using artificial intelligence. A total of 12,989 surgical interventions were performed during the period into clinical pathway (CP) 193 and clinical pathway (CP) 194 with patients diagnosed with ICD C50. Breast biopsy was performed in 8,673 patients as follows: core-needle biopsy (CNB) in 4,915 patients (56.67%), excisional biopsy in 3,051 patients (35.18%), and



ФЛУОРЕСЦЕНТНА ХОЛАНГИОГРАФИЯ – СЕРИЯ КЛИНИЧНИ СЛУЧАИ

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FLUORESCENCE CHOLANGIOGRAPHY - A CLINICAL CASE SERIES

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РЕЗЮМЕ

Въведение: Лезиите на жлъчни пътища (BDI) по време на лапароскопска холецистектомия са с потенциално катастрофални последици, когато не са разпознати навреме. Честотата им варира в широки граници, като за САЩ тя е между 0,15% и 0,3% при извършени около 1,000,000 холецистектомии годишно. Според данни от литературата, в до 90% от случаите причината за BDI е не добра идентификация на структурите в триъгълника на Calot. Флуоресцентната холангиография с индоцианиново зелено (ICG) е съвременен метод, който позволява по-добра визуализация на екстрахепаталните жлъчни пътища (EHBD) в триъгълника на Кало, преди започването на дисекцията. През 2022 г. бе публикуван и първият алгоритъм (guideline) от международни специалисти по темата, изготвен на Delphi принципа. В него е постигнат консенсус, че флуоресцентната холангиография е безопасна

SUMMARY

Introduction: Bile duct injuries (BDI) during laparoscopic cholecystectomy have potentially catastrophic consequences when not identified intraoperatively. The incidence varies widely, with a reported annual incidence of 0.15% to 0.3% in the United States with approximately 1,000,000 cholecystectomies performed annually. According to the literature, in up to 90% of cases the cause of BDI is poor visualization of the structures in the Calot's triangle. Fluorescence cholangiography with indocyanine green (ICG) is a modern method that allows visualization of the extrahepatic bile ducts (EHBD) in the triangle of Calot before dissection is started. In 2022, the first consensus conference statement on the use of near-infrared fluorescence imaging and indocyanine green guided surgery conducted on Delphi survey basis was published. It reached a consensus that fluores-

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Original Article

INTRODUCTION OF STEREOTACTIC VACUUM-ASSISTED BREAST BIOPSY IN BULGARIA

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Summary

Breast cancer is the most common cancer in women worldwide. The gold standard for biopsy is core needle biopsy. However, in certain cases, core needle biopsy cannot be applied, and the method of choice is vacuum-assisted biopsy. It is a minimally traumatic and precise method for diagnosing microcalcifications and small breast lesions. We aimed to present the initial experience with stereotactic vacuum-assisted biopsy in breast diseases at the Department of Surgical Oncology. We show indications and contraindications for this kind of biopsy and present our initial experience. From February 2020 to December 2022, 29 stereotactic vacuum-assisted biopsies were performed. Benign histology was found in 9 cases, malignant – in 15, and 5 cases were precancerous. Therefore, being an innovative, minimally invasive, and highly accurate method for diagnosing breast lesions with a good cosmetic effect, it allows early diagnosis of breast cancer, and, last but not least, the procedure can be curative for benign lesions.

Keywords: stereotactic vacuum-assisted breast biopsy, microcalcifications, breast cancer

DOI:10.2478/jbcr-2023-0024

Original Article

SQUAMOUS CELL CARCINOMA OF THE SKIN: EPIDEMIOLOGY, DIAGNOSIS, MANAGEMENT, RECURRENCE AND MORTALITY RATES FOR THE BULGARIAN POPULATION

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Summary

Squamous cell carcinoma of the skin (SCCs) accounts for 20-30% of non-melanoma skin cancers, resulting in 1 million cases in the United States annually. The risk of developing SCCs increases annually, and this process will likely be continued because of the aging population. We investigated 355 patients with histopathologically confirmed SCCs. We rated the age- and sex-related incidence, risk factors, localisation, pathological features, staging systems and treatment, and the recurrence and mortality rates of the tumours. Staging and risk stratification for recurrence and metastases is significant. Most SCCs are successfully treated surgically, with a small subset of carcinomas leading to recurrence, metastasis, and death. Patients with advanced and metastatic disease are often inappropriate for surgical and radiation therapy. We present the first study on squamous cell carcinoma of the skin conducted for the population of the Pleven and Lovech regions of Bulgaria.

Keywords: squamous cell carcinoma of the skin, epidemiology, treatment, recurrence, mortality



Case Report

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JOJ Case Stud

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Synchronous Primary Cervical Cancer and Follicular Lymphoma- A Case Report



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Abstract

Double synchronous primary cancers of gynecological cancers are a relatively common event. However, synchronous primary genital and extragenital cancers are a rare event. We report a case with synchronous primary cervical cancer and non-hodgkin lymphoma-follicular lymphoma. Recently, a 43-year-old women presented with abnormal uterine bleeding was found to have a T1bpN1Mx cervical cancer and a inguinal lymphomegaly presentation of follicular lymphoma. We present this case with a brief review of references.

Keywords: Cervical cancer; Non-Hodgkin lymphoma; Follicular lymphoma; Synchronous cancer

Abbreviations: NHL: Non-Hodgkin Lymphoma; D&C: Dilatation and Curettage; RHT: Radical Hysterectomy; CD: Cluster of Differentiation; Tly: T-Lymphocyte; FDC: Follicular Dendritic Cell

**48. ОЦЕНКА НА ВЛИЯНИЕТО И ЕФЕКТИВНОСТТА НА СПЕЦИАЛИЗИРАНО
ОБУЧЕНИЕ ПО ЛАПАРОСКОПСКА ХИРУРГИЯ ВЪРХУ СТУДЕНТИ ПО
МЕДИЦИНА, КАКТО И НУЖДАТА ОТ ПОДОБНИ КУРСОВЕ**

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Въведение: През последните десетилетия лапароскопската хирургия (ЛХ) се превърна в стандарт при лечението на редица заболявания. Все по-широкото приложение на тази техника води и до нужда от специфично обучение. Съвременните тенденции в медицинското образование ускоряват този процес чрез основи поставени още в студентските години на бъдещи специализанти по хирургия.

Цел: Целта ни е да оценим влиянието и ефективността на извънучебни курсове по лапароскопска хирургия за студенти по медицина с насоченост върху обучителната крива на младите лекари, както и нуждата от подобни курсове при обучението на студенти по медицина.

Материали и методи: За периода от 2012 до 2016 г. М. Караманлисв, Д. Димитров, Ц. Панов, Н. Станиславова, Н. Въртов, А. Габърски, Ч. Иванов, М. Аноар, З. Василева

*DOI: 10.1515/jbcr-2016-0018**Original Article*

DIAGNOSTIC VALUE OF TRU-CUT BIOPSY IN DIAGNOSING BREAST LESIONS

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Summary

Breast cancer is the most common cancer in women worldwide. The standard for detecting it includes clinical exam, mammography and fine-needle aspiration cytology. Our aim was to establish the role of the tru-cut biopsy in the diagnosis of malignant breast lesions. We provide a two-year retrospective clinical study defining 98.67% sensitivity, 100% specificity, 100% positive predictive value, 80% negative predictive value and an overall diagnostic accuracy of 98.73%. In 89.1% of the malignant lesions, the sample was adequate to define the receptor status. Therefore, tru-cut biopsy is an easy, cheap, safe and accurate alternative to fine-needle aspiration cytology in the diagnosis of breast lesions.

Key words: tru-cut biopsy, core needle biopsy, breast lesions