

2506

POSTER

Isolated Limb Perfusion in Cancer Patients: a Primary National Experience Report in a Developing Country

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Background: Isolated limb perfusion (ILP) is an alternative cancer treatment for patients with extremity melanomas and sarcomas in patients, which in the past their only treatment option was amputation due to the impossibility of surgical excision. We report the initial experience of the Colombian National Cancer Institute of isolated limb perfusion.

Material and Methods: A case series report was constructed with all patients who underwent ILP using Melfalan as chemotherapeutic agent. Clinical records were reviewed dated from January 2007 to December 2008. Clinical, surgical and pathological characteristics were extracted in a standardized way using a case report form. Treatment response was documented.

Results: Thirteen patients were initially analyzed. The limb salvage proportion was 76%. Population characteristics are summarized in table 1. Local adverse effect rate was 16%. Response to ILP according to RECIST criteria was as follows: five patients (41.7%) presented partial response, five patients (41.7%) presented stable disease and two patients (16.7%) disease progression. There were no patients with complete response.

Conclusions: Isolated Limb Perfusion is a good treatment alternative to preserve compromised extremities in patients with advanced melanomas and sarcomas in which amputation is indicated. In the present, TNF alpha is not available for use in ILP procedures due to regulatory constraints. This limits our capacity to evaluate its usefulness. A prospective study that additionally brings into consideration aspects such as disease free period, global survival and quality of life scales may improve our knowledge about the ILP impact and acceptability in our population.

Table 1. Clinical and demographic patient characteristics

Demographic characteristics	Value (n)	Percentage (%)
Sex		
Male	5	38
Female	8	62
Limb involved		
Superior	5	38
Inferior	8	62
Histological type		
Melanoma	3	23
Sinomial sarcoma	5	38.4
Leiomyosarcoma	2	15.3
Malignant fibrous histiocytoma	1	7.6
Epithelioid sarcoma	1	7.6
Skin appendage carcinoma	1	7.6

2507

POSTER

Selective Intra-arterial Chemotherapy With 5 FU in Patients With Unresectable Colorectal Liver Metastases

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Background: An outcome assessment was performed of patients with unresectable colorectal liver metastases (CRLM) treated with 5 FU-based hepatic artery infusion (HAI).

Methods: Twenty-three patients who were pretreated with systemic chemotherapy received 5 FU-HAI alone or combined with systemic chemotherapy. We reviewed patient charts and our prospective patient database for survival and associated risk factors.

Results: Patients received 5 FU-HAI for unresectable CRLM from January 2000 to September 2010. Twelve patients (52%) received concurrent systemic chemotherapy. Median overall survival (OS), progression-free survival (PFS), and hepatic PFS were 15.6 months (range, 2.5–55.7 months), 3.9 months (range, 0.7–55.7 months), and 5.5 months (range, 1.6–55.7 months), respectively. The liver resection rate after HAI was 35%. PFS was better in patients undergoing secondary resection than in patients without resection (hazard ratio [HR] 0.21; 95% confidence interval [95% CI] 0.07–0.66; P=0.0034), while OS showed a trend toward improvement (HR 0.4; 95% CI 0.13–1.2; P=0.09). No differences were observed in OS (P=0.69) or PFS (P=0.086) in patients who received

5 FU-HAI alone compared with patients treated with combined regional and systemic chemotherapy. Presence of extrahepatic disease was a negative risk factor for PFS (liver-only disease: HR 0.03; 95% CI 0.0032–0.28; P<0.0001). Toxicities were manageable with dose modifications and supportive measures.

Conclusions: 5 FU-HAI improves PFS and results in a trend toward improved OS in selected patients able to undergo liver resection after tumour is downsized.

2508

POSTER

Pseudomyxoma Peritonei – the Role of Cytoreductive Surgery in the Combination With Fluorescent Laparoscopy and Intraperitoneal Photodynamic Therapy

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Background: Pseudomyxoma peritonei (PMP) is a rare clinical syndrome including progressive intraperitoneal accumulation of mucous and mucinous implants, usually originates from the mucinous tumours of the appendix or ovaries. The traditional approach to PMP is based on the surgical cytoreduction combined with intraperitoneal or systemic chemotherapy.

Materials and Methods: A total of 9 PMP patients (7 m, 2 f), underwent cytoreductive surgery in the combination with photodynamic therapy (PDT), were included in this study. The mean age of patients was 51.4±10.5 years (range 25–72). The primary site of the pseudomyxoma was the appendix. The mean PCI was 17.6±9.8 (range 4–35). 6 (67%) patients were identified with disseminated peritoneal adenomucinosis (DPAM), 3 (33%) patients – with peritoneal mucinous carcinomatosis (PMCA). Diagnostic fluorescent laparoscopy with “Alasens”[®] photosensitizer was performed in 8 patients. All patients underwent subtotal peritoneal resection, appendectomy, subtotal omentectomy, intraperitoneal PDT with “Photogem”[®] photosensitizer. Additional right hemicolectomy was performed in 3 patients with PMCA (well differentiated mucinous adenocarcinoma of appendix). 8 patients are available for analysis of long term results in a median follow-up time of 26 months (range 16–47).

“Photogem”[®] is a sensitizer of hypoxic cells for photodynamic diagnosis and treatment of malignant tumours. After injection (dose – 2.5–3 mg/kg) it selectively concentrates in the tumour tissue during 48 hours. Under the laser illumination “Photogem”[®] generates complex of photodynamic and photochemical reactions in the affected cells, which lead to destruction of tumour cells. “Photogem”[®] has the maximum uptake at 396, 504, 570 and 633 nanometers. In our study 630 nm laser with the power of 600 mW was used.

Results: Cytoreduction was considered CC0 – in 1 (11.1%) patients, CC1 – in 5 (55.6%), CC2 – in 3 (33.3%). Postoperative wound complications occurred in 1 (8.3%) patient. There was no PDT-associated toxicity as well as no postoperative mortality. Adjuvant chemotherapy (FOLFOX4) was performed in all 3 patients with PMCA. Among the traced 8 patients all are still alive, 6 (75%) of them are free of disease. Recurrence occurred in 2 (25%) patients after CC2 cytoreduction. They were underwent the second procedure: fluorescent laparoscopy with laparoscopic PDT – in 1 patient and laparotomy with CC1 cytoreduction and intraperitoneal PDT – in 1.

Conclusion: Cytoreductive surgery in the combination with intraperitoneal photodynamic therapy is a feasible treatment strategy for PMP of the appendiceal origin. Optimal cytoreduction is the most important component of treatment of peritoneal pseudomyxoma patients.

2509

POSTER

Clinical Treatment of GIST Based on Analysis of 27 Cases According to Japanese Clinical Practice Guideline

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Background: The management of GIST has evolved very rapidly in the last few years. Recently the adaptation of laparoscopic surgery was extended and many GIST were found out and experienced by an advance of new diagnostic methods. Japanese clinical practice guideline for GIST was published in 2008.

Materials and Methods: We examined our treated GIST's cases based on Japanese guideline and evaluated the surgical management. As an object of 27 cases of GIST treated since 1999 to 2010, we examined our diagnosis and treatment, evaluated the prognosis and the effectiveness of imatinib mesylate.

Results: We had 27 cases of GIST, 17 male, 10 female, mean age 66.3 year-old (39 to 92 y.o.). The primary lesion of GIST were 3 of esophagus (11.1%), 13 of stomach (48.1%), 2 of duodenum (7.4%), 7 of small intestine (25.9%) and 2 of large intestine (7.4%). We operated 25 cases without 1 of duodenum with liver metastases and 1 of small intestine with giant tumour. Conventional curative operation was carried out 17 cases. Laparoscopic curative operated 5 cases were less than 5 cm in size. Non curative operated 3 cases were all dead. 22 of curative operation had no postoperative adjuvant therapy and they are all alive without recurrence. Treatment of imatinib mesylate administered 5, 1 was effective and 4 were not effective. 1 effective case arisen from duodenum with liver metastases is alive in 74 months from the start of this therapy.

Conclusions: The goal of surgical treatment is complete gross resection with an intact pseudocapsule. Lymphadenectomy is usually unnecessary because lymph node metastases are so rare with GIST and sarcoma in general.

The first choice of surgical treatment of GIST is conventional curative resection of tumours according to Japanese Guideline. In selective cases of small tumour, laparoscopic complete resection is allowed for minimally invasive surgery. Treatment of imatinib mesylate should be done firstly in inoperative cases and secondly in cases of incomplete resection.

2510

POSTER

Ultraradical Surgery and Heated Intraperitoneal Chemotherapy (HIPEC) as Multimodal Treatment of Advanced Colorectal Cancer

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Background: Examined does aggressive surgical treatment in combination with HIPEC (oxaliplatin) could increase median survival in patients with advanced stage of colorectal cancer.

Method: Ultraradical surgery and HIPEC was applied in patients who were initially with peritoneal carcinomatosis or infiltration in around organs. We evaluated the patients during the period 2000–2009 in this retrospective study.

Results: During 2000 and 2009 we performed 90 ultraradical surgical procedures which in considered: hysterectomy, bilateral adnexectomy and en block resection of rectosigmoid colon, total omentectomy, total peritonectomy, partial peritonectomy, splenectomy, liver resection.

All patients were treated with HIPEC (40C) using oxaliplatin (410 mg/m²) in 3l of perfusate during 90 minutes. The average duration of the procedure was 5h 57 minutes. The follow up period was 9 years. One year survival rate was 81.25% and three year survival rate was 56.25%.

Conclusion: Ultraradical surgery combined with HIPEC prolongs patient's survival and is considered to be a safe procedure if performed by the experience team of oncological surgeons.

2511

POSTER

Needle Oophorepexy – a New Simple Technique for Ovarian Transposition Prior to Pelvic Irradiation

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Background: Irradiation of the pelvis in the treatment of cancers will result in ovarian failure unless the ovaries are shielded adequately. To protect the ovaries, an oophorepexy may be performed. Our aim was to evaluate the feasibility, morbidity, and efficacy of laparoscopic ovarian transposition using a simple percutaneous needle technique.

Materials and Methods: Fifteen patients (ten with rectal cancer and five with Hodgkin's disease) underwent the new laparoscopic oophorepexy technique. Laparoscopic releasing of the ovary was performed by cutting the utero-ovarian ligament followed by placing the ovaries on the anterior abdominal wall. A percutaneous straight needle was introduced through a 2-mm skin incision at the site of fixation. Repositioning of the ovaries was done on an outpatient basis without the need for readmission to the operating theatre.

Results: The technique was effective, reliable, and simple with no morbidities. Repositioning was performed simply in the outpatient clinic. At follow-up, 11 patients had evidence of ovarian function.

Conclusion: Percutaneous needle transposition of the ovaries is a simple, effective, reliable, and easy-to-perform technique. It has short learning curve and can be done by less experienced laparoscopic surgeons.

2512

POSTER

The Value of Mastectomy Flap Fixation in Reducing Fluid Drainage and Seroma Formation in Breast Cancer Patients

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Background: Prolonged, and excessive drainage of serous fluid and seroma formation constitute the most common complications after mastectomy for breast carcinoma. Seroma formation delays wound healing, increases susceptibility to infection, skin flap necrosis, persistent pain and prolongs convalescence.

Materials and Methods: Between June 2009 and July 2010 forty patients with breast carcinoma, scheduled for modified radical mastectomy, were randomly divided into 2 groups, the study group (20) and the control group (20). In the study group; the mastectomy flaps were fixed to the underlying muscles in rows of stitches, at various parts of the flap and at the wound edge using fine absorbable sutures. In the control group; the wound was closed in the conventional method at the edges. Closed suction drains were used in both groups. Patients, tumour characteristics and operative related factors were recorded. The amount and colour of drained fluid were recorded daily. The drains were removed when the amount become less than 50 cc. The total amount and duration of drained fluid and the formation of seroma were recorded and the results were compared between the two groups.

Results: In the flap fixation group, the drain was removed in significantly shorter time compared to the control group ($p < 0.001$). Also, the total amount of fluid drained was significantly lower in the flap fixation group ($p < 0.001$). The flap fixation group showed a significantly lower frequency of seroma formation compared to the control group, both clinically ($p = 0.028$) and ultrasonographically ($p = 0.047$).

Conclusions: The mastectomy flap fixation technique is a valuable procedure that significantly decreases the incidence of seroma formation, and reduce the duration and amount of drained fluid. However, it should be tried on a much wider scale to prove its validity.

2513

POSTER

Pancreatoduodenectomy With Portal Vein Resection and Reconstruction

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Background: Pancreatobiliary carcinoma readily progresses and infiltrates other tissues due to the invasiveness and the complex anatomy of the affected region. In particular, pancreatic head carcinoma frequently infiltrates the portal vein (PV). In the present study, we reviewed the cases of pancreatoduodenectomy (PD) with PV resection performed at our department.

Methods: Between April 2000 and March 2011, 223 patients with pancreatobiliary carcinoma underwent PD at our department. Patients were divided to 2 groups; PD with PV resection (PV group, $n = 38$), and PD without PV resection (non-PV group, $n = 185$). Clinicopathological data were compared. PD was always performed with extended lymphadenectomy. Data were expressed PV group to non-PV group in order.

Results: Mean ages were 67.6 and 68.9 years old, respectively. And males/females 20/18 and 110/75. Mean operation times were 583.4 vs. 547.8 minutes ($P = 0.16$), and operative blood losses were 897.8 vs. 777.0 ml ($P = 0.41$). Post-operative hospital stays were 34.0 days and 42.0 days ($P = 0.11$). Mean survival periods was 23.6 months and 26.8 months, ($P = 0.88$). In PV group, histological portal vein infiltration was observed in 21 of the 38 patients, and there were 3 cases of bile duct carcinoma and 18 cases of pancreatic head carcinoma.

Case Study: We present a video-taped operation of PD with PV resection. The patient was a 72-year-old female with suspected PV infiltration of pancreatic head carcinoma. Operation time was 450 minutes and blood loss was 933 ml. Invaded portal vein was resected and simply reconstructed with end to end anastomosis. Postoperative course was uneventful, and the patient was discharged on postoperative day 17.

Conclusion: PV resection should be combined with PD if PV infiltration is suspected.

2514

POSTER

Pancreatic Remnant Occlusion After Whipple's Procedure: an Alternative Oncologically Safe Method

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Background: Progress in surgical technique and peri-operative management has significantly reduced the morbidity and mortality rate of pancreatic