250 mg/m^2/day+ l-leucovorin (l-LV) 25 mg/body/day. Weekly hyperthermia was performed for 60 min immediately after irradiation for 3 to 5 sessions with radiofrequency capacitive heating devices. Surgery was planned 6 to 8 weeks later. Treatment response was evaluated with high resolution MRI. After the operation, histological examination was also performed.
Results: All patients completed treatment without treatment modification. For hyperthermia, overall average value of maximum temperature in rectal cavity was 40.1ºC. Grade 2, 3 and 4 acute diarrhea (NCI-CTC version 2) occurred in 6.1%, 3.0% and 0%, respectively. Tumor down staging using high resolution MRI occurred in 16 (48.5%) cases. There was 79.2% (19/24) agreement between preoperative MRI and pathology assessment of T stage. After the preoperative treatments, clinical complete response (tumor was not detected by MRI, colon fiberscope, and residual cancer tissue also remained unproved histologically) were seen 30.3% (10/33). Surgery was performed in 25 of 33 patients. The remainder has not received surgery (development of metastasis in 2, refused surgery in 3, within 6 weeks from completion of preoperative therapy in 3). Sphincter preserved surgery was performed in 17 patients (68.0%). No macroscopic tumor with only pathological microscopic disease was observed in 24.0% (6/25), and pathological complete response was observed in 12.0% (3/25).
Conclusions: The use of 5-fluorouracil and l-leucovorin by night infusion chronotherapy and pelvic radiotherapy combined with regional hyperthermia increases tumor response with less adverse effects and may contribute to increased sphincter preservation in patients with low rectal cancer.

695 PUBLICATION

CT investigations in contemporary decision making of CD 117 revised gastrointestinal stromal tumours (GISTs)

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Background: The management of GISTs has evolved very rapidly since the introduction of tyrosinekinase inhibitors. Many GISTs were not recognized in the past, but recently developed immunohistochemical markers have facilitated their diagnosis. We reevaluated the clinico-pathological features of previously resected mesenchymal tumours of the gastrointestinal tract. The aim of this study was to determine the accuracy of previous diagnoses and to investigate whether subsequent CT-investigations would reveal new (treatable) lesions in case of GIST.
Patients and methods: Patients with mesenchymal tumours of the gastrointestinal tract operated on between 1987 and 2005 were identified using medical and pathology files (PALGA). These tumours were pathologically reviewed using immunohistochemical staining for CD 117, CD 34, MIB 1, S100 and actine, a procedure which has been performed as a standard since 2002. Patients alive and identified as GISTs underwent pulmonary and abdominal CT-scans in order to identify individuals suitable for further (imatinib) treatment.
Results: 41 Tumours had been identified as possible GISTs in this period. 32 Mesenchymal tumours of patients still alive were reanalyzed. Of these, 13 tumours had correctly been identified as GISTs. Pathological revision of the other 19, previously diagnosed as undefined gastrointestinal mesenchymal tumours, revealed GIST in another 8 cases. Therefore 21 of 32 (66 %) gastrointestinal mesenchymal tumours were shown to be GISTs. At surgery 19 GIST-patients underwent a R0 resection. In one patient a R2 resection was performed and in one patient the tumour appeared to be irresectable at time of operation. The latter two patients started imatinib immediately postoperatively. In 7 of the remaining 19 patients a CT-scan was not performed because of old age (>80 years). Until now in three of the remaining 12 patients CT-scanning showed loco-regional and metastatic disease, where after imatinib was started.
Conclusions: The true incidence of GISTs has been underestimated. There is a merit in reviewing the clinical diagnoses of all mesenchymal tumours of the gastrointestinal tract using modern immunohistochemical techniques. In case of GIST, follow-up schemes using pulmonary and abdominal CT-scanning can detect loco-regional or metastatic disease which may respond to surgical resection and/or imatinib treatment.

696 PUBLICATION

A pragmatic basis for follow up of patients after hepatectomy (HPX) for colorectal liver metastases (CLM)

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Introduction: HPX is the only treatment for CLM that offers potential cure. However >60% of cases will recur after HPX for CLM, and patients increasingly are undergoing repeat-HPX with further curative intent. However there is no consensus regarding the timing of follow-up CT scans following HPX for CLM. These scans are expensive, involve considerable radiation exposure, add psychological morbidity and are only of use if they detect potentially treatable recurrent disease. This study evaluates timing of detection of liver only recurrence (LOR) post-HPX and its relationship to further possible liver surgery on which to base a pragmatic follow-up protocol.
Methods: Prospective single centre 5-yr follow-up of 184 patients post-HPX for CLM. Data stratified and presented as number of patients for timing and site of LOR, extra-hepatic recurrence (HER), repeat-HPX with curative intent.
Results: 108/184 (59%) developed recurrent disease during the first 5 years after HPX, and 14 were amenable to repeat-HPX.

Time of detection (months)	LOR	EHR	Repeat-HPX
3	1	4	0
4–6	21	10	1
7–9	13	5	3
10–12	10	11	3
13–18	6	3	2
19–24	5	2	2
25–60	8	9	3

Conclusions: Very few cases recurring <6 months post-HPX were amenable to repeat-HPX. The peak incidence of LOR amenable to repeat-HPX occurs between 6–24 months post-HPX. Therefore a reasonable follow up protocol for post-HPX CT scans would be at 6, 12, 24, 36, 48 and 60 months post-HPX.

697 PUBLICATION

Preoperative criteria of incomplete resectability of peritoneal carcinomatosis from non-appendiceal colorectal carcinoma

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Objective: to analyse the causes of non resectability of peritoneal carcinomatosis (PC) of non-appendiceal colorectal carcinomas, discovered only at the time of the laparotomy.
Background: The combination of a maximal cytoreductive surgery (resecting tumor deposits >2 mm of diameter) with intraperitoneal chemo-hyperthermia results in curing a significant number of patients. Complete resectability of PC is the determining factor of this time-consuming and resource-consuming therapy. Unhappily, we have not been able, so far, to safely predict this resectability before laparotomy.
Methods: We prospectively checked the selected patients with colorectal PC who underwent a laparotomy in order to receive this new treatment, but who finally presented a non completely resectable PC. Their preoperative parameters were retrospectively studied and compared to those of the same number of similar mixed patients who successfully underwent this treatment.
Results: 29 patients presented a non completely resectable PC at laparotomy. They were compared with 29 other mixed patients who underwent a complete resection of the PC. The factors allowing to predict this non resectability were, in a decreasing order: presence or persistence of an ascitis just before the laparotomy ($p = 0.0008$), progression of the PC while on neo-adjuvant chemotherapy ($p = 0.01$), abnormal CT-imaging ($p = 0.03$), and subocclusive syndroma ($p = 0.05$). These parameters were partially interrelated.
Conclusion: The persistence of an ascitis, and any progression of the disease while on chemotherapy are important predictive factors of incomplete resectability of non-appendiceal colorectal PC.