

Materials and methods. A retrospective study has been realized reviewing the clinical histories of 211 patients diagnosed of rectal adenocarcinoma treated with neoadjuvant chemoradiotherapy between January 2001 and December 2010. The patients received a dose between 45 and 50.4 Gy with external radiotherapy in concomitance with chemotherapy based on fluoropyrimidinas.

Results. Of the 211 patients, 144 were men and 67 women, with a mean age of 62 years (30–85). Data obtained on the acute toxicity are: cutaneous: G0: 56.8%; G1: 19.4%; G2: 15.1%; G3–4: 7.1%. Genitourinary: G0: 79.6%; G1: 15.6%; G2: 3.3%; G3–4: 0%. Rectal: G0: 68.2%; G1: 20.8%; G2: 7.6%; G3–4: 2.4%. Gastrointestinal: G0: 55.9%; G1: 21.3%; G2: 14.2%; G3–4: 7.6%. Hematologic: G0: 86.2%; G1: 6.2%, G2: 2.4%, G3–4: 1.9%. 25% of patients developed late toxicity, the most frequent are intestinal obstruction and incontinence. Relapses: 18 patients local recurrence (8.5%), 49 distant metastases (23.2%) and 12 both levels (5.7%). 15 patients had a second tumor (7.1%). After 54 months of follow-up (3–141), overall survival was $76 \pm 5\%$ and free survival of disease was $69 \pm 6\%$.

Conclusion. The results are comparable to data reported in the literature and as demonstrated in several studies, the preoperative treatment produces a decrease of the local and distant recurrence compared with postoperative treatment and survival increased. Also, the treatment tolerance has been good and we only find low percentage of toxicity in all grade.

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Results of 10 years of adjuvant chemoradiotherapy for gastric carcinoma

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Introduction. INT-0116 study showed improvement in terms of disease free survival and overall survival using a scheme of adjuvant chemoradiotherapy. To date, this is the standard adjuvant treatment after surgery in locally advanced gastric cancer. **PURPOSE** To evaluate toxicity (RTOG scale), disease free survival (DFS), recurrence free survival (RFS) and overall survival (OS) in patients treated with schema QT/RT in our department.

Materials and methods. Retrospective analysis of 67 patients diagnosed of gastric carcinoma and treated between October 2002 and June 2012 at “Hospital Reina Sofía” in Cordoba (Spain). Scheme of treatment: 5 cycles of chemotherapy (5-Fu/Leucovorin) and concomitant radiotherapy (45 Gy at 180 cGy/fraction) with second and third cycles. We hereby present a descriptive analysis and survival analysis using Kaplan-Meier method. Statistic SPSS program (V10).

Results. Mean age: 61 (35–79), 75% males, 25% females. Epigastric pain was the most frequent symptom (39%) at diagnosis. Total gastrectomy performed in 49% of patients and partial gastrectomy in 51%. The most frequent location was antrum (56.7%). Stage distribution: IB: 4.5%, IIA: 40.3%, IIB: 9%, IIIA: 31.3%, IIIB: 9%, IV: 5%. Margins R0 in 78% and R1 in 22%. 90% of patients completed the full treatment. Maximum toxicity recorded during concomitant treatment: Digestive G2: 28.4%, Esophagus G3: 1.5%, Leucopenia G2: 15%, Thrombocytopenia G2: 1.5% and skin G1: 4.5%. Median follow-up was 35 months (2 - 126). OS at 3 and 5 years: 54% and 48% respectively. DFS in the same periods: 60% and 53%. 36% patients had loco-regional disease recurrence and metastases. RFS at 3 and 5 years: 74% and 65% respectively. Median OS: 51.7% (95% CI: 12–91).

Conclusions. Chemoradiotherapy treatment for locally advanced gastric carcinoma provides good results in terms of DFS, RFS and OS with good tolerance. Our results are similar to those described in the literature.

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Short-course radiotherapy: More time until surgery?

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Introduction. A preoperative treatment choice of rectal cancer is short-course (SC) radiotherapy (RT). In recent researches, it has been observed that superior intervals of time to surgery seem to relate with a greater complete pathological response rate.

Objectives. Determine the existent relationship between the time until surgery with the pathological response grade (PRG). **Methods:** A series of 20 patients is analyzed retrospectively, collected from May/2009 until December/2012, diagnosed with rectal adenocarcinoma (stages II and III) that received preoperative SC radiotherapy (25 Gy/500 cGy session). The data was analyzed with the statistical program SPSS v.15. The Ryan’s modified scale was used for the PRG valuation.

Results. The age rank was from 43 to 90 years (media: 76.5). 16 (80%) were of the male sex, 80% (16) correspond to T3 and 65% (13) were N+. 7 (35%) received 1 cycle of chemotherapy pre and/or post radiotherapy and 13 (65%) radiotherapy exclusively. Regarding to the type of surgery: Anterior resection in 10 (50%), abdominoperineal amputation in 9 (45%) and local excision in 1 (5%). The time rank pass until surgery was from 2 to 15 weeks (median: 5 weeks). The PRG was 5 (25%), 11 (55%) and 4 (20%) for grade 1, 2 and 3 respectively. There was not grade 0. The 17% relapsed locally in the first year. After a follow-up median of 16 months, 83% kept free of relapses until the end of the research or until the patient decease. The local survival at 3 years was of 20%. There is no statistical correlation between the waiting time until surgery >5 weeks and a better pathological response ($p = 0.57$).

Conclusions. There is no statistical correlation between the waiting time until surgery >5 weeks and a better pathological response. It would be necessary to design specific studies to prove the stated hypothesis. The local survival data is related to the sample characteristics (older patients, comorbidities).

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Stereotactic body radiation therapy (SBRT) liver our experience in Group Croasa

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Introduction. We describe our series of patients treated with SBRT liver since 2010. Target Analyze dosimetric aspects, treatment response and acute toxicity.

Materials and methods. CT-simulation c/c IV (slice thickness) with body stereotactic body frame (ELEKTA) with mattress individualized and diaphragmatic compression. Post-immobilization fluoroscopy to determine the three-dimensional displacement and decide PTV margins. Use liver-window/level for Identify the lesion. Image Fusion (PET-CT or MRI). SYNERGY multi-energy linear accelerator. Isocenter stereotactic localization (Dynatrac system). Robotic table (6 degrees of freedom-Hexapod). Image-guided RT (IGRT) cone beam. We included 11 treatments in 7 patients (p), (3 of them with several locations: 2 p treated LOES simultaneous 2–3 and 1 p treated twice). Histology: 1 hepatocarcinoma, the rest metastases: adenocarcinomas of colon, pancreas, rectum, small cell lung, bladder urothelial. 6 males. Average age: 64 years (50–72).

Results. Average GTV volume: 18.5 cm³ (1.1–68.2), average PTV volume: 44 cm³ (7.2–150) (largest PTV: 72 year old woman treated 6 months ago, hepatic EE (RMI), currently receiving chemotherapy because of lung PE). Radiotherapy techniques: 2 IMRT-SS (beams/segments: 11/54, 12/24), 1 VMAT-SA and 8 RT-3D (11–29 beams). Schemes as characteristics of the case, the most used: 8 × 7.5 Gy (other: 8 × 7, 7 × 8, 5 × 12 and 6 × 9). Well tolerated without acute toxicity registration. Mean follow-up: 14 months (3–24). Local progression free interval range: 14 months (3–24). Median overall survival: 33 months (12–43). Status: Only 1 patient died of distant disease, 2 p current ongoing SBRT (other locations).

Conclusions. The SBRT achieves ablation of hepatic lesions and constitute a valid option compared to surgical resection of the same, with a great tolerance. Although optimal schemes fraction dose have not been established, our scheme is consistent with published hypofractionated.

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Tumor regression grade and tumor volume reduction rate by magnetic resonance in neoadjuvant chemoradiation for rectal cancer

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Purpose. To evaluate the tumor volume reduction rate (TVRR) measured by magnetic resonance volumetry and to correlate with the pathologic tumor response after preoperative chemoradiotherapy (CRT) for locally advanced rectal cancer.

Materials and methods. Ten consecutive patients with locally advanced rectal cancer (TNM Stage III–IV) had undergone preoperative CRT and radical surgery. The tumor volume was measured using three-dimensional magnetic resonance volumetry before and after CRT, before surgery. We analyzed the correlation between the TVRR and the pathologic tumor response in terms of tumor regression grade (TGR) proposed by Rye et al.

Results. The mean tumor volume was 42 cm³ (max 76, min 14) before and 12 cm³ (max 36 and min 0 cm³) after CRT. The mean TVRR was 70.31% (max 100%, min, 29%). The TGR was: 5 patients with TGR 0 and 1, and 5 patients with TGR 2 and 3. TVRR after CRT was different between patients with poor TGR (2 and 3) and those with good TGR (0 and 1). The patients with good regression (TGR 0 and 1) had TVRR > 75%, and those with poor regression (TGR 2 and 3) had TVRR < 75%.

Conclusion. The TVRR measured using three-dimensional magnetic resonance volumetry correlated well with the pathologic tumor response in terms of TGR after preoperative CRT for locally advanced rectal cancer. This conclusion is consistent with the results reported in the literature.

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