Concurrent chemoradiotherapy in cervical cancer: Prognostic factors, toxicity, long-term survival

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Concurrent chemoradiation therapy has been the standard treatment in locally advanced cervical cancer since 1999. In a homogeneous series of 288 patients treated between 1996 and December 2011, survival data, prognostic factors and toxicity of the treatment have been analyzed. The treatment includes external beam radiotherapy and brachytherapy, concurrent weekly chemotherapy. Median age of the patients is 54 years old. FIGO classification for disease stages shows 6.1% (IB1), 14.6% (IB2), 47.1% (IIB), 24.4% (III), 7.8% (IVA). Squamous cell carcinoma was the most common histology (77.4%), followed by adenocarcinoma in 16.8%. After a median follow-up of 4.4 years, the 5-year overall survival rate is 80.2%. By diagnostic stage, they are 85% in IB2, 76% in IIB, 70% in III, and 68% in IVA. The main location for recurrence is the cervix (11.8%), and the most common site for distant disease is the lung (4.8%). 24.4% have local and distant recurrence. In the multivariate analysis, the prognostic factors for overall survival that have been identified with a statistical significance are HPV and HIV infection, high stages of disease and older patients. Performance status ≥ 1 and brachytherapy have only a significant value in the univariate analysis. The acute toxicity grade ≥ 3 was observed in 19.4% of patients (14.1% haematological). The most frequent low grade toxicity was 46.3% haematological, 40% of bowel-related toxicity, 38.9% of nausea and vomiting, and 8.1% of renal dysfunction. Chronic toxicity grade ≥ 3 has been only seen in 1.2% (renal dysfunction), and in the low grades, it is observed a 6% of bowel-related toxicity and 1.4% of mild renal dysfunction. This long follow-up series shows a good overall survival rate with chemoradiation therapy in locally advanced stages of cervical cancer, with a low rate of acute and, especially, chronic toxicity, indicating a good quality of life for these patients.

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Daily fractions in postoperative high-dose-rate brachytherapy for endometrial carcinoma. The long-term results

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Background. High-Dose-Rate Brachytherapy (HDR-BT) is an accepted part of treatment for endometrial carcinoma and is usually performed in 1–2 fractions per week using different total doses and doses per fraction. To reduce the overall treatment time, HDR-BT was administered with a 3–4 days/week schedule.
Patients and methods. From June 2003 to December 2008, 164 patients with stage I–IIIc endometrial carcinoma were treated with HDR-BT (4-5Gy per fraction). The patients were divided into 2 groups; Group 1 (40/164 patients) was treated with HDR-BT alone (6 fractions; 4fr/week) and Group 2 (124/164 patients) was treated with both (External Beam Radiotherapy [EBRT] + HDR-BT: 3 fractions/week). Complications were analysed using RTOG scores for rectum and bladder and the objective scores of LENT-SOMA for vaginal complications.
Results. The mean follow-up was 48 months. In group 1, 35% of patients underwent treatment in <10 days and 65% in >10 days. In group 2, 53.2% received treatment in <5 days and in 46.8% in >5 days. Vaginal relapse was observed in only 2 patients (1.2%), both having received adjuvant EBRT + HDR-BT. Acute vaginal toxicity appeared in 8.5% and late vaginal toxicity in 20.7% of patients, with 13.4% being G1, 6.7% G2 and only 0.6% being G4. No statistically significant differences were found in complications in either brachytherapy group regardless of the overall time.
Conclusion. In our series three fractions given in 3–5/days after EBRT or 6 fractions in 10 days, is a safe regimen in terms of complications and local control.

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Experience with stages I–III Endometrial Carcinoma (EC): A population-based study in Tarragona province (Spain)

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Introduction. To evaluate outcome, failure patterns, prognostic factors and radiotherapy (RT) toxicity after postoperative RT for Stages I-III EC in Tarragona Province (Spain).
Methods and materials. A retrospective population-based review was conducted on 251 patients with stages I–III EC (excluding sarcoma cases) treated between 1997 and 2006 from different gynaecological Departments and in a single Radiation Oncology institution. Multivariate analysis of variables was performed for the endpoints of overall survival (OS), disease-free survival (DFS) and locoregional relapse free survival (LRFS).

Results. Mean age: 64.76 years (38–88). FIGO Stage: I (66.93%), II (17.53%), III (15.54%). *T*: < 2cm: 86.45%, > 2cm: 13.55%. Pathology: endometrioid 74.61%, papillary 2.73%, serous 2.73%, papillary-serous 2.34%, clear-cell 3.13%. Grade (G): 41% G1, 39% G2, 19.67% G3; myometrial invasion: 43.33% ≥ 50%, 48.33% < 50%, 8.33% not invasion. Treatment: (1) Surgery performed: 97.32% (88% abdominal, 11.96% vaginal, 54.28% lymph node dissection (32.24% pelvic, 20% pelvic and paraortic, paraortic only 2.04%). (2) External beam irradiation (EBI) 62.07%, brachytherapy (BT) 52.90%. (3) Chemotherapy 11.51%, Hormonal therapy 6.3%. (4) Toxicity: 68.96% (G1-2), 7% (G3). Relapses: 9.96% locoregional recurrence and 10.34% at distance. Survival at 5 years: (1) 5-year OS in all stages was 80.1% (84%, 90.3% and 64.5% for SI, SII and SIII, respectively). (2) 5-year DFS was 92.1% for all patients (93.5%, 97.5% and 79.8% for SI, SII and SIII respectively. (3) 5-year LRFS was 93.7% for all patients (94.7%, 97.5% and 89.4% for SI, SII and SIII respectively). Multivariate analysis: significant prognostic factors for good outcome (OS and DFS) were lymph node dissection, age < 75, *T* ≤ 2cm, invasion ≤ 50%, RT and BT.
Conclusions. Our results suggest that survival, RT toxicity and relapse were similar to the other reported series. Predictors of good outcome were lymph node dissection, age, tumor size, myometrial invasion, RT and BT.

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Extended laparoscopic para-aortic lymphadenectomy in cervical cancer. Our experience

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Introduction. 10–30% of the patients with locally advanced cervical cancer present para-aortic lymph node metastases at diagnosis. Although PET-CT represents a significant diagnosis advance, its sensitivity to detect para-aortic metastases ranges from 73–92%. Therefore, surgical lymph node evaluation remains the gold standard in detecting para-aortic metastases.
Objectives. We present our experience in performing laparoscopic para-aortic lymph node dissection (LPL).
Material and methods. From November 2009 to January 2013, 32 patients with locally advanced cervical cancer (stages IB-IVB) were included. As radiographic evaluation, pelvic MRI and CT were performed. Afterwards, LPL was performed. Ovarian transposition in the same surgical procedure was offered to pre-menopausal patients. All patients received concurrent radiochemotherapy and brachytherapy with radical intent after LPL.
Results. MRI detected pathologic pelvic lymph nodes in 43.75% of the patients (14 patients). CT scan showed pathologic para-aortic lymph nodes in 15.6% (5 patients). The mean number of retrieved nodes was 14.84 (2–35). 4 patients (12.5%) had metastatic para-aortic lymph nodes, while CT only had detected pathological lymph nodes in 1 patient. In the other 4 patients with abnormal CT, lymph nodes were negative after surgery. With a median follow up of 24 months, only one patient (3%) presented side effects. It was the first LPL performed (patient HIV(+) with an abdominal abscess and peritonitis), and the complications had been solved completely. No Grade III–IV side effects were reported. Radiochemotherapy was not delayed as a result of laparoscopy. General and intestinal tolerance did not deteriorate with respect to previously recorded in patients without surgery or with retroperitoneal lymphadenectomy.
Conclusions. The laparoscopic para-aortic lymphadenectomy is an effective technique for staging in locally advanced cervical cancer, provides essential information for the design of radiotherapy volumes, with a very low morbidity rate, a short postoperative recovery time, and without delaying treatment of the primary lesion.

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Nodal-staging methods in cervical cancer. Preliminary results on overall survival

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Introduction. CT and MRI sensibility for detecting para-aortic disease is 43% and 60%. PET-CT has higher sensibility (73–100%) and specificity (97–99%). Surgical staging is the gold standard for detection, and the retroperitoneal laparoscopic approach the safer technique. Although surgical approach seems appealing, the only randomized study to date comparing it to radiological staging concluded it was detrimental. The objectives were to determine if the method used for para-aortic lymph node staging impacts on overall survival in locally advanced cervical cancer (LACC).
Methods and materials. From June 1999 to October 2012, 273 LACC patients were sent to our department. After excluding patients with: metastatic disease (8), pregnancy (5), synchronous tumors (4), and HIV (3); 253 patients were left for this study. FIGO stage was: IB1 7, IB2 32, IIA 2, IIB 81, IIIA 1, IIIB 112, IVA 17 and IVB 1 (positive supraclavicular node treated with radical intent). The staging method used was: CT and/or MRI (S1), PET-CT (S2) and surgical staging (S3) in 184, 46 and 23 patients respectively. Since follow-up was shorter for S2, primary endpoint was established as overall survival (OS) at 3 years.
Results. At the time of the study, 172 patients were alive (15 with recurrent disease); 75 had died (8 without recurrence); and 6 were lost to follow-up without evidence of disease. Actuarial 5 year OS was 70% (CI 95%: 63–76%). Median time from diagnostic biopsy