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Introduction. Cervical cancer (CC) brachytherapy is performed under patient sedation, general or spinal anesthesia depending on centers tradition. No data have been reported demonstrating superiority of one the three approaches. Present work analyzes dosimetric results of application performed under spinal anesthesia or sedation.

Material and methods. 26 consecutive patients with histologically proven CC (FIGO IB to IIIB) underwent radio-chemotherapy and 3D MR/CT-based IGABT with Fletcher or Utrecht type applicators (Nucletron). 15 patients (group A) received overall 62 BT application under spinal anesthesia, remaining 11 patients (group B) received overall 47 application under sedation. Rectum, Bladder and Sigmoid were drawn on CT (all by MF) according GEC-ESTRO guidelines. Vaginal packaging (VP) was contoured on CT images from lower pelvic bone margin up to the cervix (including applicator). For the present study standard point A plan of 7 Gy was applied to all cases and different OARs DVH parameters analyzed.

Results. Median age was 51 (44 in group A and 56 in group B). Median VP volume was significantly different between group A or B (116 cm³ vs. 54). Overall VP volume was strongly correlated 0.0001). Rectum D2cc was 4 Gy (group A) and 5.3 Gy_≤ to Rectum and Bladder D2cc (p, group B). Bladder D2cc was 5.6 Gy and 6.6 Gy respectively. The VP volume showed a trend to decrease with patients' age. Also analyzing results by age cohort, spinal anesthesia was superior to sedation: Group A > 50 years: VP = 76.54 cm³; Rectum D2cc 4.83 Gy; Bladder D2cc 6.12. Group A < 50 years: VP = 129.7 cm³; Rectum D2cc 2.62 Gy; Bladder D2cc 5.38. Group B > 50 years: VP = 47 cm³; Rectum D2cc 5.92 Gy; Bladder D2cc 6.72. Group B < 50 years: VP = 76 cm³; Rectum D2cc 3.53 Gy; Bladder D2cc 5.3.

Conclusion. BT insertion under spinal anesthesia allows optimal vaginal packaging thus reducing dose to OARs.

<http://dx.doi.org/10.1016/j.rpor.2013.03.059>

Targeted intraoperative radiotherapy (IORT) with intrabeam in breast-conserving surgery

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After breast-conserving surgery, 90% of local recurrences occur within the index quadrant despite the presence of multicentric cancers elsewhere in the breast. Thus, restriction of radiation therapy to the tumour bed during surgery might be adequate for selected patients. The Intrabeam (Carl Zeiss) (IB) is an electronic brachytherapy device that can be used to deliver low energy X-rays (50 kV) to a lumpectomy cavity at the time of lumpectomy for breast cancer. The randomized phase III TARGiT trial demonstrated similar recurrence rates to whole breast irradiation (WBI) and a lower overall toxicity profile on short-term follow-up.

Aim. There is not reported experience with IB for breast cancer in Spain. We present the first and limited experience in this setting evaluating prospects of use of IB in Spain: (1) has been described an increased clinically relevant RBE (mean RBE values of 50-kV X-rays from Intrabeam were 1.26–1.42). Total dose given 20 Gy at surface applicator. (2) For selected patients, a single dose of radiotherapy delivered at the time of surgery by use of targeted intraoperative radiotherapy should be considered as an alternative to external beam radiotherapy delivered over several weeks. (3) Lumpectomy and Targit boost combined with external beam radiotherapy results in very low local recurrence rate due to accurate localization and the immediacy of the treatment. Targit boost might be superior to an external beam boost in its efficacy. (4) Cost reduction both in economical, personal and quality of life compared with WBI. (5) Other tumour locations are also suitable for this treatment.

Conclusion. While a variety of APBI techniques are currently available for clinical use, our early experience with IORT shows it is well tolerated with low morbidity. Delivery of IORT adds moderate operative time (mean 30 min) and require creating subcutaneous tissue flaps.

<http://dx.doi.org/10.1016/j.rpor.2013.03.060>

Telephone overview of patients with prostate implant LDR in Castilla y León

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Introduction. Castilla y León is the largest Spanish region and has a low population density, which does not allow the creation of highly specialized equipment throughout its territory, so many such services are centralized in a regional referral center. This means that, to attend these services, patients have to travel considerable distances, with the cost and inconvenience that entails, both for the patient and for the administration and society in general.