regression analysis showed an interesting, but not statistically significant trend: better pathological responses were seen in patients presenting more important reduction of SUV\textsubscript{max} and SUV\textsubscript{mean} (Fig. 1).

Conclusions: These preliminary prospective data seem to support the hypothesis that changes of some 18FDG-PET/CT values, as SUV\textsubscript{max} and SUV\textsubscript{mean}, could predict the pathological response in locally advanced rectal cancer after neoadjuvant treatments. Further analyses are needed.

**Objectives:**
- To report the 4-year outcomes of a consecutive prospective series of anal cancer patients treated with concurrent chemo-radiation delivered with intensity-modulated radiotherapy (IM-RT), employing a simultaneous integrated boost (SIB) approach.

**Materials and Methods:** A prospective series of 54 patients was enrolled between 2007 and 2013. Treatment schedule consisted of 50.4 Gy/28 fractions (1.8 Gy daily) to the gross tumor volume, while the elective nodal volumes were prescribed 42 Gy/28 fractions (1.5 Gy/daily) for patients having a cT2N0 disease. Patients with cT3-T4/N0-3N3 tumors were prescribed 54 (T3) or 59.4 (T4) Gy/30 fractions (1.8 Gy daily) to the gross tumor volume; gross nodal volumes were prescribed 50.4 Gy/30 fr (1.68 Gy daily) if sized < 3 cm or 54 Gy/30 fr (1.8 Gy daily) if > 3 cm; elective nodal regions were given 45 Gy/30 fractions (1.5 Gy daily). Chemotherapy was administered concurrently according to the Nigro’s regimen.

**Primary endpoints** was colostomy-free survival (CFS). Secondary end-points were local control (LC), disease-free survival (DFS), cancer-specific survival (CSS), overall survival (OS) and toxicity profile.

**Results:** Median follow up was 32.6 months (range 12-84).
- The actuarial probability of being alive at 4 years without a colostomy (CFS) was 68.9 % (95% CI: 50.3-84.7%).
- Actuarial 4-year OS, CSS, DFS and LC were 77.7% (95% CI: 60.7-88.1%), 81.5% (95% CI: 64-91%), 65.5% (95% CI: 47.7-78.5%) and 84.6% (95% CI: 71.6-92%).
- Actuarial 4-year metastasis-free survival was 74.4% (95% CI: 55.5-86.2%).
- Maximum detected acute toxicities were as follows: dermatologic – G3: 13%; GI-G3: 8%; GU-G3: 2%; anemia-G3: 2%; neutropenia-G3:11%; G4: 2%; thrombocytopenia- G3:2%. Four-year G2 chronic toxicity rates were 2.5% (95% CI: 3.6-16.4) for GI, 14.4% (95% CI: 7.1-28) for GU, 3.9% (95% CI: 1-15.9) for skin and 4.2% (95% CI: 0.1-15.9) for genitalia.

**Conclusions:** Our findings support the feasibility of IMRT in the combined modality treatment of anal cancer, with comparable results to the literature with respect to local control, spinchter preservation and survival. Acute toxicity is lower if compared to series employing standard techniques. Our results support the use of IMRT on a routine basis for the treatment of anal cancer.

**Purpose/Objective:** To analyze results of combined treatment of adjuvant radio-chemotherapy in patients diagnosed with gall-bladder cancer after complete resection.

**Materials and Methods:** Since June 1993 until March 2013, 87 patients with the diagnosis of gall-bladder cancer who underwent extended or simple cholecystectomy were staged as T1b-2-3N0-1M0, received adjuvant radio-chemotherapy at Instituto Oncológico, Viña del Mar. Overall survival and median survival were analyzed in relation to different prognostic factors, using Kaplan-Meier techniques.
and compared with log-rank tests. Since June 1993 until March 2013, 87 patients with the diagnosis of gallbladder cancer who underwent extended or simple cholecystectomy and were staged as T1b-2, N0-1, M0, received adjuvant radiochemotherapy at Instituto Oncológico, Viña del Mar. Overall survival and median survival were analyzed in relation to different prognostic factors, using Kaplan-Meier techniques and compared with log-rank tests.

Results: With a median follow-up of 43 months (range: 5-180 months) the 5 and 10-year overall survival (OS) rate for the entire cohort was 44.9% and 36.8%, respectively, and the median survival time was 45 months. In the group who underwent extended cholecystectomy, the 5-year OS was 57.2% versus 31.2% for those who underwent simple cholecystectomy (p=0.032). The median survival time was 57 and 27 months for patients with extended cholecystectomy and simple cholecystectomy, respectively (p=0.032).

Conclusions: After a complete resection, radiochemotherapy appears a good approach and can achieve a long term survival rate. This benefit is higher for those in which surgery is an extended cholecystectomy.

**EP-1219**

A bespoke, flexible clinical database system for multicentre rectal carcinoma registry

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**Purpose/Objective:** A clinical data registry was required to support the data requirements of the UK patients undergoing rectal brachytherapy. The data input and access requirements for this group culminated in the need for a bespoke development rather than an off-the-shelf product. These extended requirements included the need to allow patient-led data entry, multi-centre access, discussion forums, customised data extraction and visualisation.

**Materials and Methods:** A bespoke, extendable and customisable web-based clinical data repository system was developed. Case report forms were translated into web-enabled forms either by a specially implemented form designer or via consultation with the developer. Patient-led data entry is achieved by allowing data managers to assign each case a patient login. Patients are able to enter data on baseline and follow-up assessments via a simple web interface or tablet App before or during consultation. The registry has been designed to allow multi-centre data input while allowing doctors from disparate centres to be given permission to view other centres cases. Security of data is ensured by separation of the web server from the data server, secure certificates and user accounts with group assignments. All events that occur on the registry are logged in encrypted tables allowing audit trails to be tracked.

**Results:** An extendible web-enabled database has been developed which allows a bespoke and advanced data registry to be developed and deployed relatively rapidly. A unique feature of this registry system is patient-led data entry. Patients are reminded by email to enter data shortly before follow-up appointments and are able to utilise the web interface or tablet Apps. Additionally, a focus has been placed on the ability to extract customised data reports and visualisation reports without the need for statistical packages. This feature allows varying questions to be asked of the registry directly via the web interface.

**Conclusions:** Existing clinical trial and clinical registry systems have been evaluated for suitability for this trial. Some of the systems evaluated were more oriented to clinical trial management than needed for the current requirements and others were restricted in the patient-led data entry and data visualisation. These finding led to the development of a customisable data registry system, which is able to support multiple clinical registries and requirements. New registries can be set-up with relative simplicity by utilising built-in form and report designers tools. Patient-led entry enables a greater emphasis to be placed on survivorship which is very important in this patient-centred treatment approach.

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**EP-1220**

Highly conformal radiotherapy for T1–2 N0 (=3 cm, <50% of the anal circumference) anal cancers: outcome and toxicity

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**Purpose/Objective:** While for locally-advanced (T3-T4) tumors, the combination of elective lymph-node irradiation along with concomitant chemotherapy (CT) has been demonstrated to improve loco-regional control (LRC) compared to radiotherapy (RT) alone, the best treatment strategy remains controversial in early-stage anal tumors (T1-T2) without nodal involvement. The role of prophylactic inguinal irradiation (PII) in this setting remains an open issue, especially in the era of modern EBRT techniques. The aim of this study was to assess outcomes and toxicity results of highly-conformal EBRT techniques in patients with early-stage T1-2 N0 anal cancers measuring ≤3 cm and involving ≤50% of the anal circumference treated conservatively with or without concomitant CT.

**Materials and Methods:** Data of 44 patients with cT1 (n=13) or cT2 ≤3 cm, involving ≤ 50% of the anal circumference (n=31, median size 2.5 cm) cN0, histologically proven anal carcinoma, treated in two institutions between 03/2006 and 04/2014 were retrospectively reviewed. Median age was 61 years (range: 36-87). For all patients, the pelvis and inguinal region were treated with highly conformal EBRT techniques, including helical Tomotherapy, intensity-modulated radiation therapy (IMRT) or volumetric modulated arc therapy (VMAT) in 22, 17 and 5 patients, respectively. Regarding the boost, 28 patients were treated with 3D-conformal RT, 6 with Tomotherapy, 4 with IMRT and 6 with VMAT. Image-guided RT modalities were used for daily repositioning. EBRT schedule consisted of elective lymph node irradiation including PII to 36 Gy (1.8 Gy/fraction), followed by a boost to the GTV up to 59.4 Gy after a median gap of 10 days (range: 1-26).

Concomitant CT was delivered in 37 patients (Mitomycin/Capecitabine for 25 and 9 patients, respectively). Toxicity was scored according to the CTC AE v3.0 scale.

**Results:** Treatments were delivered in all patients as planned, with no interruptions. After a median follow-up of