

image based volumetric doses of organ at risk and correlate the doses with the toxicity profile observed in cancer patients.

**Materials and Methods:** Sixty high dose rate intracavitary brachytherapy applications were performed in thirty patients of carcinoma of cervix. External beam therapy was planned for 46 Gy in 23 fractions followed by two brachytherapy sessions of 9 Gy/session. External beam radiotherapy was given by four field box technique to each patient. CT based treatment planning was done for each intracavitary brachytherapy application. Dose volume histogram was used for analysis of volumetric dose parameters and correlated with the RTOG defined normal organ toxicity profile of the patients.

**Results:** In the follow up of two years 2 (6.66%) patient had died, 12 (40%) patients had reported no significant problem, 3 (10%) patient got bladder toxicity of grade 2, 10 (33.33%) patients had reported small intestine toxicity of grade 1 and grade 2 while no information could be available for 3 (10%) patients. The average volume of rectum, sigmoid colon and bowel loops were 60.34 cc, 22.19 cc and 270.82 cc. The average, median and 2 cc volume doses for rectum  $289 \pm 121$  cGy,  $263 \pm 113$  cGy and  $884 \pm 444$  cGy for sigmoid colon  $409 \pm 211$  cGy,  $366 \pm 185$  cGy and  $693 \pm 371$  cGy resp. and for bowel loops  $240 \pm 169$  cGy,  $153 \pm 59$  cGy and  $870 \pm 222$  cGy. The average and median sigmoid colon point doses were higher than rectum average ( $p = 0.000$ ) and median doses ( $p = 0.001$ ) but 2cc volumetric doses of sigmoid colon are less than rectum 2cc volumetric doses ( $p = 0.013$ ). For bowel loops the 2cc volumetric doses were much higher than average doses ( $p = 0.000$ ) due to its large volume. The recto-sigmoidal toxicity profile were evaluated for sigmoidal max doses and rectum 2 cc volumetric dose profile. There was a poor correlation between rectum 2 cc volumetric dose and sigmoid 2 cc volumetric doses.

**Conclusion:** According to dose toxicity profile, sigmoidal doses represent an important role for dose constrains but till now no protocol has been formed for reporting the sigmoidal doses. This study attracts the attention for reporting the sigmoidal and bowel loop doses. This study demonstrates the possibility and role of volumetric imaging and dosimetry for improvement in dose constraints.

## Uterus: Poster Abstract

**Can initial grade of endometrial cancer presenting at Tata Medical Center, predict high risk factors which will require lymph node dissection and adjuvant therapy?**

**Basumita Chakraborti, Anik Ghosh, Jaydip Bhaumik, Asima Mukhopadhyay**

**Background:** Pre-operative tumor grade influences the type of surgery planned for endometrial cancer, while the final grade affects the adjuvant therapy.

**Aims and Objectives:** To predict whether pre surgery tumour grade can predict lymph node dissection and adjuvant therapy in endometrioid endometrial cancer.

**Methods:** Retrospective observational study. Data was obtained from electronic hospital medical records system. All women with a diagnosis of endometrioid endometrial cancer who attended TMC, Kolkata between September 2011 and June 2015 included. Review of the histology was asked in all patients and MDT was planned for all patients. Most of the patients operated in TMC underwent standard pre-operative imaging work up like MRI pelvis and CT upper abdomen and chest evaluation. Staging/completion surgery included total hysterectomy, BSO, pelvic +/- para aortic lymphadenectomy +/- Omental biopsy. The surgico-pathological evaluation included histology, grade, myometrial invasion, adnexal involvement and nodal involvement.

**Results:** 155 patients had both initial and final histology. Of total 67 patients with initial grade 1 histology, 8 (12%) were upgraded to G2 and 1 (1.5%) was upgraded to G3. 35 patients with G2 disease 2 (5.7%) were upgraded to G3. Among 8 patients with G3, 7 continued to be G3. Of the 67 patients with initial grade 1, > 50% invasion was seen in 25 (37.3%). Of 35 patients with initial G2, > 50% myometrial invasion was seen in 13 (37.1%) patients. Among 8 initial G3 patients, > 50% invasion was seen in 3 (37.5%) patients. Of these 67 patients with grade 1, pelvic lymph nodes were involved in 4 (6%) patients. None of the grade 2 tumors had pelvic lymph node involvement. One (12.5%) out of 8 patients with initial G3 tumor had pelvic lymph node

involvement. Recurrence was seen in 3/67 (4.5%) of G1 patients, 7/35 (20%) with G2 cases and 1/8 (12.5%) with G3 cases.

**Conclusion:** Patients with initial G1 disease, about 13% were upgraded. Recurrence rate increased with G2 patients. For all initial grade tumors the myometrial involvement > 50% was 37%. For initial G1 patients the pelvic lymph node involvement was found to be 6%. For G3 tumor the pelvic lymph node involvement was 12.5%.

## Ovary: Poster Abstract

**Dermoid cyst in an 82-year-old woman: Can be non malignant: Its management**

**Sravani Chithra, Rahul Manchanda, Hena Kausar, Nidhi Jain, Anshika Iekhi**

Dermoid cyst of ovary is the second most common type of ovarian germ cell tumor which constitutes 30 to 40% among ovarian tumors. It occurs mostly in women of reproductive age group between 20 and 40 years and very rarely in postmenopausal women. Postmenopause has its own set of symptoms and risks. One such risk is the possibility of malignancy of ovarian cyst with an incidence of 0.5 to 2%. We present an unusual and rare case of an 82 year old woman, who presented with complaints of pain abdomen and constipation for one year duration. Colonoscopy revealed diverticulitis. Despite being treated for diverticulitis, her symptoms persisted. CT was done which showed a right ovarian mass. Diagnostic laparoscopy was done and pus seen in the abdominal cavity was collected, bowel was distended, and dermoid cyst of ovary of  $12 \times 10$  cm size which had undergone torsion three and a half times. Detorsion of ovary with right oophorectomy was done. Histopathology confirmed features of dermoid cyst with torsional changes in the wall and focal gangrene with no evidence of malignancy. Dermoid cyst occurs very rarely in postmenopausal women and treatment of choice is oophorectomy. Authors with this case highlight the proper management of ovarian dermoid cyst in symptomatic postmenopausal women.

**Key words:** Dermoid; malignancy; oophorectomy; torsion

## Miscellaneous: Poster Abstract

**Sujata Das**

Haemangiomas of the ovary are very rare neoplasms with a wide age range and present with pain lower abdomen and adnexal mass. Many a times this is an incidental finding on surgery. These neoplasms should be considered in the differential diagnosis of haemorrhagic ovarian lesion. A 48 yr old female presented to us with pain lower abdomen and adnexal mass. Her routine investigations were normal. Her tumour markers were S. LDH 213, CEA 1.72, CA 125 was 2.3. Ultrasound findings showed a well defined echogenic mass in left ovary measuring 6 x 3.4 cm with no ascitis. Her cervical cytological findings were within normal limits. Staging laprotomy was done and a bilobed solid ovarian mass was identified on left side. TAH with BSO was done and specimen saved for histopathology that finally showed cavernous haemangioma of ovary. Post op recovery was uneventful with subsequent relief of pain.

## Miscellaneous: Poster Abstract

**A rare case report of incidental solitary uterine metastasis in primary invasive lobular carcinoma of breast**

**Vivek Gupta, Amita Mishra, Namit Kalra, Bhawna Narula**

**Introduction:** Infiltrating Lobular carcinoma (ILC) of the breast is second most common cancer of breast next only to Infiltrating ductal carcinoma (IDC). It has a different metastatic pattern as compared to the IDC. Breast cancer is the most frequent primary site which spreads to gynaecologic organs.

**Case Presentation:** A 40 yrs old Iraqi lady presented as a diagnosed case of lobular carcinoma of left breast. She had already undergone a lumpectomy at Iraq a month back and now had come for completion of treatment. On