Conclusions: Cell differentiation is generally analogous to the normal cells and tissue. Cells deviating from normal might control the function of apoptosis. Therefore, Bax expression at the invasive front of OSCC is a significant indicator of prognosis.

5562   POSTER
FDG-PET/CT delayed imaging for detection of recurrent head and neck carcinoma after radiotherapy

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Background: Accurate diagnosis of recurrent or persistent head and neck carcinoma after radiotherapy is very important. MRI (magnetic resonance imaging) and CT (computed tomography) have become standard modalities to evaluate head and neck carcinoma. However, sometimes it is difficult to detect recurrent or persistent disease after radiotherapy by means of them because they depend on morphologic information. Lately 2-(^{18}F)-fluoro-2-deoxy-D-glucose positron emission tomography (FDG-PET) delayed imaging has proven to have greater sensitivity and specificity than MRI or CT to detect head and neck carcinoma. Furthermore integrated FDG-PET/CT is better than FDG-PET alone in localizing lesions anatomically. The purpose of this study was to evaluate the value of FDG-PET/CT for patients with head and neck carcinoma after radiotherapy.
Materials and Methods: Between May 2004 and May 2006, 46 consecutive patients were enrolled in this retrospective study. There were 39 males and 7 females with a median age of 68 years (33−83 years). The patients underwent FDG-PET/CT after radiotherapy.
Results: The median follow-up period was 27 months (1−55 months) from completion of radiotherapy. Locoregional lesions and distant metastases were recognized in 7 and 5 patients respectively according to pathological or clinical diagnosis. There were 2 patients who had both locoregional lesions and distant metastases. Fourteen patients had positive FDG-PET/CT findings. Seven patients of them were regarded as false positive (follow-up periods 7−43 months, median 18 months). Five patients with false positive findings had surgery after radiotherapy and FDG-PET/CT was performed only 7 days after completion of radiotherapy in another patient with false positive finding. The sensitivity, specificity, and accuracy of FDG-PET/CT were 100%, 82%, and 85% respectively.

	PET/CT positive	PET/CT negative	Total
Locoregional lesion (+)	7	0	7
Locoregional lesion (−)	7	32	39
Total	14	32	46

Conclusions: FDG-PET/CT is excellent modality to detect locoregional lesions and distant metastases for patients with head and neck carcinoma after radiotherapy. However, it is necessary to pay attention to false positive findings.

5563   POSTER
Mucositis scoring system in patients receiving adjuvant chemoradiation for oral malignancies

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Background: Mucositis is a common toxicity observed in patients receiving adjuvant radiotherapy/chemoradiation for oral malignances. Variations in host and treatment factors might contribute differences in the incidence of the same. At present there is no proper scoring system designed to evaluate the same, we planned to develop a system to predict the patients who are at risk of developing mucositis.
Methods: It is open label, prospective study conducted at Kidwai memorial institute of oncology, Bangalore India. Study population consisted of patients with oral caner, who underwent radical neck dissection, and required adjuvant radiation/chemoradiotherapy for the local control. All patients were initially planned to receive a single standard chemotherapy regimen (cisplatin 40 mg/m^2/week with radiation according to site) and uniform radiotherapy portal. However, in case wherever the chemotherapy was contraindicated, patients received only local radiotherapy. The CTC Version-3 criteria was used to assess mucositis. Primary end point was to find the population at risk of developing mucositis. Proposed risk factors to predict the development of mucositis are age, performance status, Stage leukocyte count and Albumin levels. ROC (repressor operating curves) was generated to check for the cut off values for the proposed risk factors.
Results: The sensitivity and specificity for various risk factors, their cut off values and the score for the cut off value was shown in Table 1. Based on the scoring system patients can be stratified into 3 definite risk groups. Those with score 0 – very low risk (<25% incidence of mucositis), score 1, 2 – low intermediate risk (25−46% incidence), score 3, 4 – high intermediate risk (47−69% incidence), and score 5 – high risk (>70% incidence).

Table 1. Factors effecting mucositis

Variable	Sensitivity	Specificity	Score 0	Score 1
Age (years)	80%	77%	<50	>50
Albumin (gm/dl)	78%	91%	<2.5	>2.5
Performance Status (WHO)	76%	82%	0, 1	2, 3
Total leucocyte count (/mm^3)	88%	90%	>1500	<1500
Stage (AJCC)	92%	88%	IIA	>IIA
Treatment	76%	72%	RT	CT+RT

Conclusion: Patients with older age, higher stage, low counts, and albumin levels, and receiving concurrent chemo radiation are at more risk of developing mucositis. A simple scoring system developed might predict the development of mucositis with reasonable accuracy.

5564   POSTER
Mucoepidermoid carcinoma of the parotid: prognostic factors affecting outcome

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Aim: To evaluate prognostic factors affecting the local and loco-regional control rates in patients with mucoepidermoid cancer of the parotid.
Patients and Methods: One hundred & thirty four patients with mucoepidermoid carcinoma of the parotid gland, treated at the Tata Memorial Hospital from 1993 to 2002 were analyzed. The male to female ratio was 1.8:1 (87:47) Age ranged from 2−75 years (median: 35). Twenty-six of these patients had no treatment before presentation to the TMH, 74 had some form of treatment (either excision biopsy, surgery and post-operative radiotherapy or surgery) while 38 patients had presented with a recurrence. In 69 (52%) patients the T stage was not known, while 6 (4%), 22 (16%), 31 (23%) and 6 (4%) patients had T1, T2, T3 and T4 tumors, respectively. Eighteen patients (13%) had clinically palpable nodes at presentation. 35 (26%) patients had surgery alone, 27 (20%) received only radiotherapy, surgery and post-operative radiotherapy in 43 (32%) patients. Forty seven (35%) patients had low grade tumors, 54 (40%) intermediate grade, 16 (12%) had high grade tumors while in 17 (13%) patients the grade was not known. In 35 patients adjacent structures like the skin, muscle, soft tissue or fat was involved while in 15 patients more than one of these structures was involved. Only23 patients had positive cut margins, while in 3 the margins were negative but close. Perineural invasion was present in only 8 patients and facial nerve was involved pathologically in 4 patients. 70 (52%) of the 134 patients received adjuvant radiotherapy. The dose of radiotherapy ranged from 8 Gy to 62.5 Gy in conventional fractionation (median: 50 Gy).
Results: After a median follow-up of 34.29 months (range: 1–143 months), the disease free survival for the entire group was 57.1%. Both clinical (p = 0.04) and pathological (0.00) N-stage, grade (p = 0.02), surgical margin status (p = 0.00) and perineural invasion (p = 0.01) were significant factors influencing DFS. In high grade tumors use of adjuvant radiotherapy resulted in better DFS (p = 0.001). RT dose more than 56 Gy resulted in superior local control (p = 0.57).
Conclusion: N-stage, grade, surgical margin status, perineural invasion and use of adjuvant radiotherapy are important factors affecting outcome.