

Oral lesions associated with concomitant chemoradiotherapy in patients with oral squamous cell carcinoma in Pakistan

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Oral squamous cell carcinomas (OSCC) form >90% of the oral cancers affecting mostly adult males between the fourth and seventh decades of life. The most commonly used treatment is Concomitant chemoradiotherapy (CCRT) having both loco-regional and distant control with reported acute and chronic toxicity effects on adjacent normal tissue. This study determined the clinico-pathological features and clinical effects of CCRT on adjacent oral mucosa in patients with OSCC.

A total of n=81 patients presenting with various histological subtypes, grades and stages of OSCC were recruited and clinical data with oral examination findings were recorded. Radiotherapy dosages were adjusted with 70, 90 and 119 Gy & combination chemotherapy drugs i. e. cisplatin and 5 fluorouracil given in 4, 6 and 8 cycles depending on patient's stage and nutritional status.

The mean age of the patients was 53.5 ± 14.1 years and male to female ratio was 1.4:1 (64.2% males, 35.8% females). The most common (63%) presentation was non healing ulcer. Tongue (55.6%) followed by buccal mucosa (27.2%), floor of mouth (9.9%), retromolar area (4.9%) and lip and palate (1.2%) were involved mostly. Habitual smoking and pan chewing was found in 45.7% and 12.3% cases respectively. Well (WD), moderate (MD) and poorly differentiated (PD) tumours were seen in 29.6%, 51.96%, and 14.8% cases respectively. Most tumours were keratinizing OSCCs. T4 stage accounted for 56.8% cases. A significant association was seen between the site of tumor and the following variables; gender ($p=0.036$), etiological habits of patients ($p=0.018$), gross appearance ($p=0.001$), histological grading ($p=0.024$). Also age and clinical stage of the tumour yielded significant association ($p=0.035$). Clinical findings included mucositis (92.6%) and xerostomia with mild, moderate and severe degree in 11.1%, 46.9%, 35.8% cases respectively. Candidiasis (60.5%), ulcers (87.7%), palpable lymph nodes (64.2%), limited mouth opening (64.2%) and fistula (40.7%) were also reported. A significant association where ($p<0.05$) was seen between radiotherapy dosage and limited mouth opening, xerostomia, histological grading, chemotherapy drugs and candidiasis (in females). Also significant association between chemotherapy drugs and xerostomia ($p=0.003$) was observed.

OSCC is mostly seen between 4th to 6th decades of life with male predominance. Moderately differentiated tumours but advanced clinical stage (T4) formed the largest proportion. Most common CCRT induced changes were mucositis, xerostomia, candidiasis and trismus. Detailed cytomorphological studies are underway in OSCC patients undergoing CCRT.

Biography

Sadia Minhas is a postgraduate student of M. PHIL in Oral Pathology at University of Health Sciences Lahore, Pakistan and has completed her M. PHIL research titled 'Cytopathological Effects Of Concomitant Chemo-Radiotherapy on Normal Oral Mucosa and Peritumor Area'. She has, on her credit one oral presentation of her research work at the Surgical Oncology Society Annual Conference in Pakistan. Earlier, she acquired her Bachelors in Dental surgery in 2005.

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