

TITLE: GENDER-BASED ANALYSIS OF ORAL CANCER PATIENTS UNDERGOING CHEMOTHERAPY AND RADIOTHERAPY AND ITS IMPACT ON NUTRITIONAL STATUS

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Abstract

Oral cancer is a major public health concern, with a significantly higher prevalence among males, particularly in regions with high tobacco and alcohol consumption. This study examines the gender distribution of oral cancer patients undergoing chemotherapy and radiotherapy in Bhopal and assesses its impact on nutritional status. Data from 300 patients revealed that 80.3% were male and 19.7% were female, indicating a strong male predominance in both treatment groups. The disparity is primarily attributed to lifestyle factors such as higher tobacco and alcohol use among males. The nutritional status of these patients is crucial, as cancer treatments often lead to side effects that impact dietary intake and overall health. Male patients may already have pre-existing nutritional deficiencies due to unhealthy habits, whereas female patients, though fewer in number, may face greater nutritional vulnerabilities due to lower baseline body mass index (BMI) and hormonal influences. This study underscores the need for gender-specific nutritional interventions to enhance treatment outcomes and patient well-being.

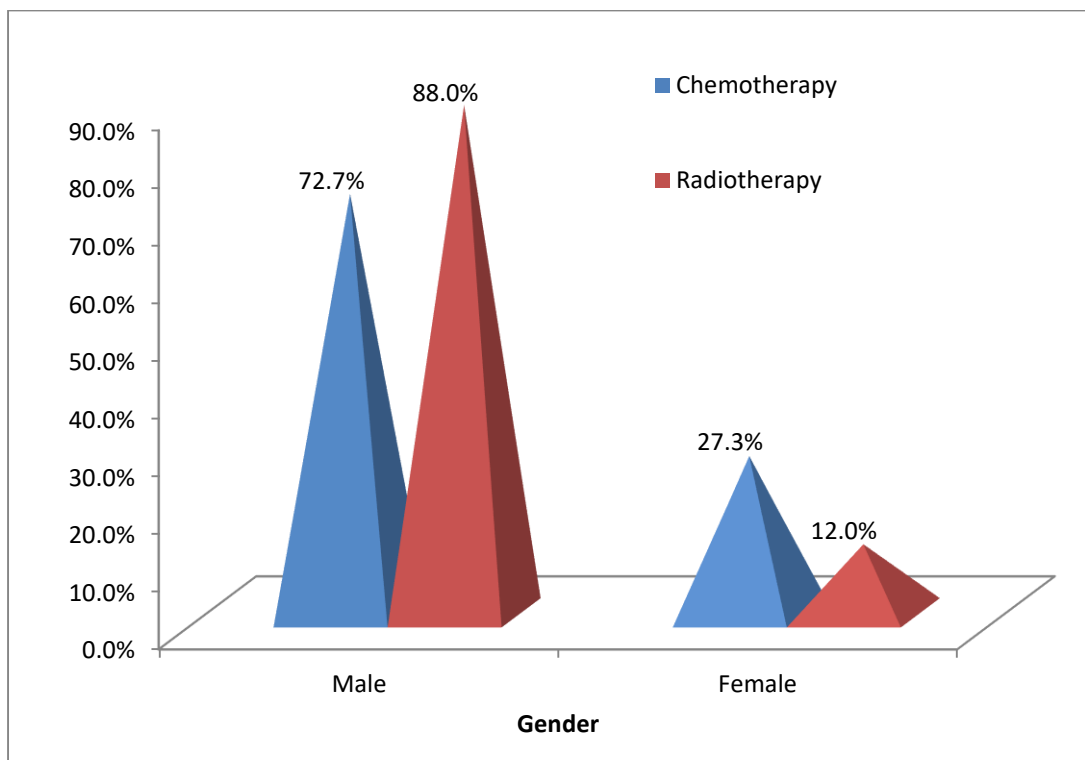
Keywords

Oral cancer, Chemotherapy, Radiotherapy, Gender Disparity, Nutritional Status, Tobacco Consumption, Alcohol use.

Introduction

Oral cancer is one of the most common malignancies in India, with its incidence strongly linked to lifestyle factors such as tobacco use, alcohol consumption, and poor dietary habits. The disease burden varies significantly by gender, with male patients being more frequently affected than females. This study aims to analyze the gender-based distribution of oral cancer patients undergoing chemotherapy and radiotherapy in Bhopal and evaluate the impact of these treatments on their nutritional status.

The gender distribution of oral cancer patients undergoing chemotherapy and radiotherapy in Bhopal highlights a significant predominance of male patients.



The results indicate that 80.3% of patients undergoing either chemotherapy or radiotherapy were male, while only 19.7% were female. This gender disparity is likely due to socio-cultural and behavioral factors influencing oral cancer risk.

Factors Contributing to Gender Disparity

Several factors contribute to the significantly higher prevalence of oral cancer among males:

1. **Tobacco and Alcohol Consumption:** Studies indicate that men in India consume tobacco and alcohol at significantly higher rates than women, increasing their risk of oral cancer.
2. **Occupational Exposure:** Males are more likely to be employed in industries involving exposure to carcinogenic chemicals, pollutants, and ultraviolet radiation.
3. **Healthcare-Seeking Behaviour:** Women may experience delayed diagnosis due to social stigma, lack of awareness, or limited healthcare access, leading to underrepresentation in treatment groups.

Impact on Nutritional Status

Nutritional status plays a critical role in the prognosis of oral cancer patients undergoing chemotherapy and radiotherapy.

- **Nutritional Deficiencies in Male Patients:** Due to high tobacco and alcohol consumption, male patients often have pre-existing deficiencies in essential vitamins and minerals, exacerbating treatment-related weight loss and immune suppression.
- **Nutritional Challenges in Female Patients:** Although fewer in number, female patients may face greater nutritional challenges due to lower initial BMI, anemia, and differences in metabolism.
- **Treatment Side Effects:** Both chemotherapy and radiotherapy lead to common side effects such as mucositis, nausea, loss of appetite, and difficulty swallowing, all of which further compromise nutritional intake.

Conclusion

This study highlights a strong male predominance among oral cancer patients undergoing chemotherapy and radiotherapy in Bhopal. The gender disparity is primarily attributed to lifestyle-related risk factors such as tobacco and alcohol use. Additionally, the impact of treatment on nutritional status differs between genders, necessitating gender-specific dietary interventions. Addressing these nutritional challenges is essential for improving treatment

tolerance and recovery among oral cancer patients. Further research should focus on developing tailored nutritional strategies to enhance patient outcomes.

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