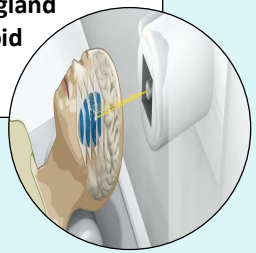
Recent Treatment Modalities for Oral Cancer

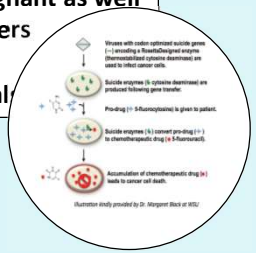
Proton beam therapy

- High energy protons targeted towards the tumour cause destruction of tumour cells due to their biological property.
- Used in salivary gland tumours like adenoid cystic carcinoma
- Used in humans



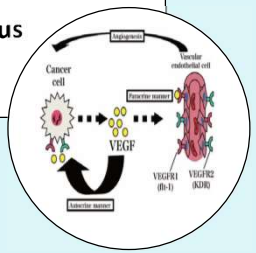
Gene therapy

- Based on the theory that new genetic material into target (cancerous) cells while causing no damage to surrounding healthy cells and tissue
- Used in premalignant as well as malignant disorders of head and neck
- Under clinical trial



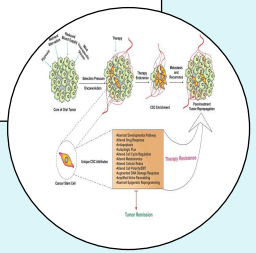
VEGF

- Anti-VEGF(Vascular Endothelial Growth Factor) monoclonal antibodies reduce growth of tumour cells due to decrease in blood supply
- Used in squamous cell carcinomas
- Clinical trials



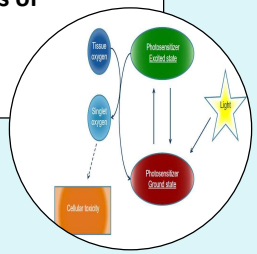
Oral Glutamine

- It is present in plasma and normal levels are required to maintain and preserve gut integrity
- Used in patients having radiation induced mucositis
- Undergoing Animal studies



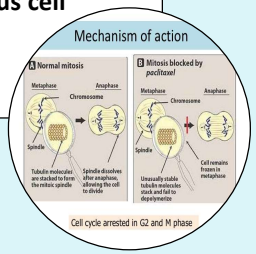
Photodynamic therapy

- PDT is based on initial sensitization of the target tissue with an agent with photosensitizing properties.
- Used in premalignant as well as malignant lesions of the oral cavity and larynx
- Used in humans



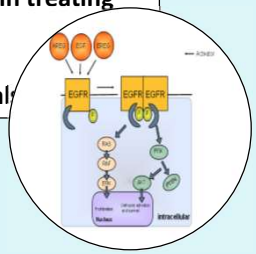
NACT

- Drugs like taxane(docetaxel), placitaxel and cisplatin can be used to reduce surgical margins and distant metastasis rates.
- Can be used in oral cancers especially Squamous cell carcinomas
- Undergoing clinical trials



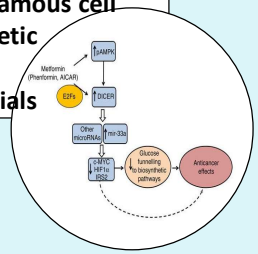
EGFR

- Anti-EGFR antibodies (most commonly monoclonal cetuximab) and small molecule tyrosine kinase target EGFR
- Commonly used in treating Oral Squamous cell Carcinomas
- Under clinical trials



Metformin

- Metformin treated cancer cells modulate macrophage polarization and causes cell cycle arrest
- Can be used in oral cancers especially Oral squamous cell carcinomas in diabetic patients
- Under clinical trials



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