

# Rehabilitation management of trismus in head and neck cancer patients

## Letter to editor

Trismus is known as the Painful restriction in the opening of mouth due to spasm of masticatory muscles.<sup>1</sup> Normal mouth opening ranges between 35-45 mm. In male the mouth opening is some time much than females (40-60mm).<sup>2</sup> It's a common and debilitating complication in head and neck cancer and its treatment. The trismus can cause negative effects in Nutrition, Phonation, Dental hygiene, treatment and quality of life. It can cause Pain in the Temporo mandibular joint and it can cause headache in some conditions.<sup>3</sup>

Surgery of Mandible i.e hamimandibulectomy, mandibulectomy, Zygomatic arch, Zygomatic arch complex, Tongue (Glossectomt) can cause trismus. When the masticatory muscles are within the field of Radiation it can cause the fibrosis and leads to trismus. Due to poor hygiene of mouth and toxic effect of Chemotherapy ultimately leads to Oral Mucositis, Stomatitis, Glossitis . This condition can cause dysphagia and it increases the Overall Treatment Time (OTT).<sup>4</sup> Proper Oro Facial Exercises, Temporo mandibular Joint (TMJ) Mobilization can increase the mouth opening. Photobiomodulation Therapy (PBM) can decrease the pain in the TMJ.

## Use of Photobiomodulation (PBM) in Trismus management

We can use PBM as Prophylactic and Therapeutic. PBM can be used extra-orally and intra-orally. When the patient is on Radiation therapy or Chemo-Radiation Therapy PBM can be used Bilaterally over Pterygoid, Masseter, Buccinators muscles or Temporomandibular joint (Extra-orally) and over the Pterygomandibular Raphae (Intra-orally). The Extra-oral dose (Prophylactic) will be 750-830nm, 20mW/cm<sup>2</sup>- 80mW/cm<sup>2</sup>. The intra-oral dose (Prophylactic) will be 630-680 nm, 20mW/cm<sup>2</sup>-200mW/cm<sup>2</sup>.<sup>5</sup>

It will be easier to mobilize the Temporo mandibular Joint (TMJ) when there is less pain. Ultimately when the patient's mouth opening and tongue movements are sufficient, patients can maintain their proper oral hygiene, can have sufficient food. The Grade of Oral Mucositis will be less, Pain score will be less and the incidence of Dysphagia will be less which ultimately helps to maintain proper weight and blood counts during Chemo Radiation Therapy. The Quality of Life will be good for the Cancer survivors will be improved a lot. Psychologically patients will be in a good state.

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## Conflicts of interest

No conflict of interest.

## References

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