

INTRODUCTION

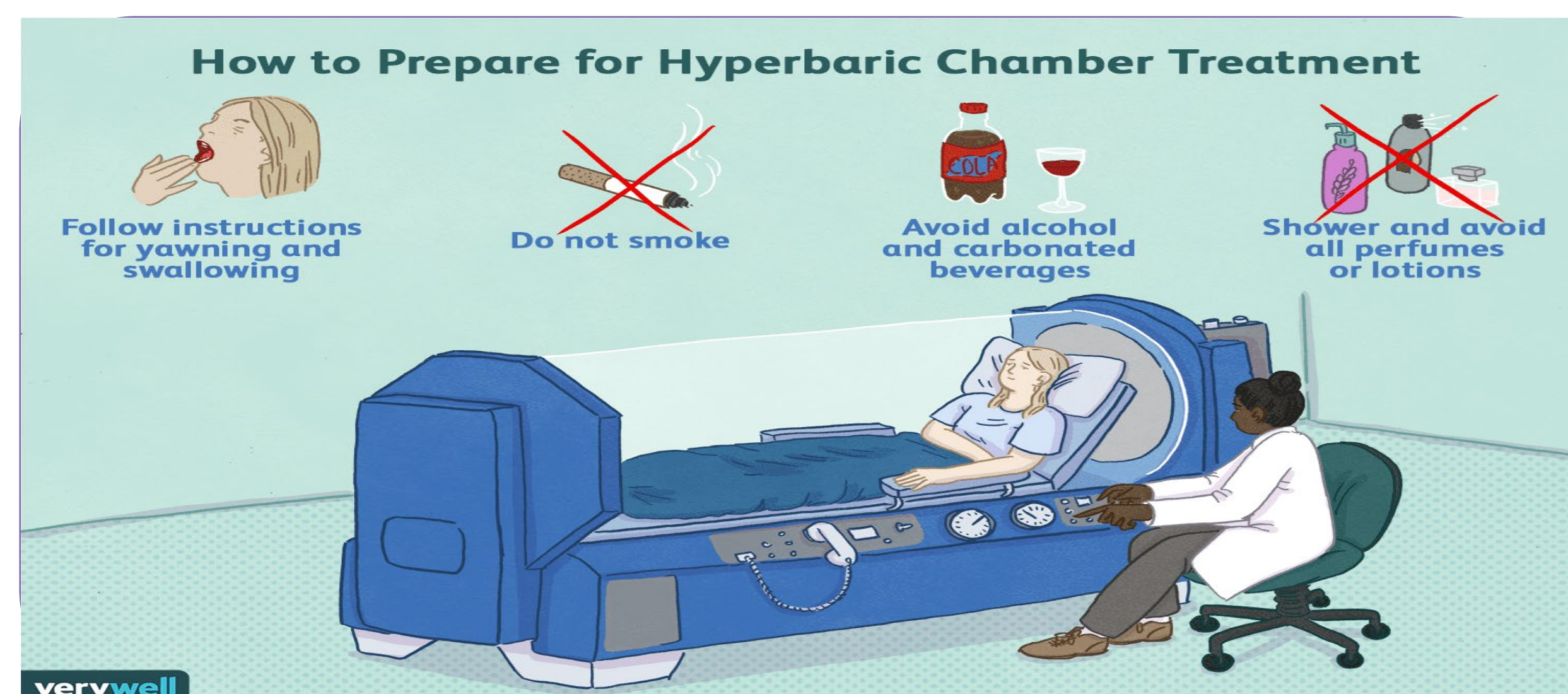
Chemoradiotherapy is the standard of care in the nonsurgical management of head and neck cancers. The most common side effect is xerostomia which may have a significant impact on a patient's quality of life.¹ Hyperbaric oxygen therapy (HBOT) has been used for decades to treat osteoradionecrosis of the mandible and subsequently patients have reported improvement in xerostomia as well.²

HYPERBARIC OXYGEN THERAPY

- ❖ HBOT is a medical treatment used to boost the body's natural healing processes.
- ❖ Once the patient is within the chamber, 100% oxygen is released which is compressed to a pressure exceeding that of the sea level (101kPa).
- ❖ 30 to 50 sessions for 90 minutes daily.
- ❖ The goal is to fill the body with oxygen to repair tissues and restore normal bodily functions.

XEROSTOMIA

Xerostomia or dry mouth is a progressive symptom that is due to the fibrosis of the salivary glands resulting in reduced saliva with abnormal viscosity. It is an unpleasant symptom which may negatively interfere with many aspects of one's daily life. It can cause oral pain, force the patient to choose a softer diet, lead to a longer duration of meals, lead to poor quality of sleep, and can impede on one's speech.³



RESULTS

- ❖ In one large Australian study, 64% of patients reported improvement in symptoms.⁴
- ❖ Cankar et al. (2011) reported improved changes in oral bioflora and improved xerostomia scores in 16 patients.⁵
- ❖ A literature review found HBOT to be superior in alleviating subjective symptoms.⁶
- ❖ Sherlock et al. (2018) reported a statistically significant difference in saliva volume after HBOT.⁷

DISCUSSION

Research has shown that 2 years is the latest point at which spontaneous regeneration or habituation would likely occur. However, in another study in which 54 participants were treated with HBO for more than 2 years after radiation therapy, an increased salivation rate was observed in 40 participants (70%). This suggests that the increased salivation rate may be due to HBO treatment rather than spontaneous regeneration.²

CONCLUSION

HBOT is an effective treatment modality for a variety of chronic radiation-induced tissue injuries and has a low complication rate⁴. Patients treated with HBOT showed significant improvement in xerostomia. In the majority of cases, this treatment ameliorated the condition of patients for a median follow-up period of 3.8 years⁴. HBOT is a viable and safe treatment option for post radiation complications including xerostomia.

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