INTRODUCTION

Gagging is an involuntary contraction of the muscles of the soft palate or pharynx that results in retching. It is a normal protective reflex to prevent foreign bodies from entering the trachea. In some cases this problem is so severe that it requires definite treatment. Various local and systemic factors are responsible for gagging.

Systemic factors include catarrh and alcoholism. Psychological factors like fear, noise, and smell can also trigger this response. From prosthodontic point of view, use of thin consistency of impression material, large size impression tray or over extended denture base may be important. Tactile stimulation of soft palate, posterior part of tongue, fauces can also induce gagging.

It is a reflex mechanism in which afferent signals are carried by trigeminal, glossopharyngeal and vagus nerves from receptors around the mouth, tongue, soft palate to the brain having vomiting centre located in medulla oblongata. Efferent signals are carried out by trigeminal, facial, vagus, hypoglossal and sympathetic nerves which result in gagging. Impulses from the olfactory, optic, auditory nerves also modulate these stimuli as well.

Management

Before starting any dental procedure detailed history must be taken. Enquire any unpleasant previous dental treatment experience. A positive history about gagging will require certain precautionary measures. Use of Gagging Severity Index will categorize the patients having history of gagging.

Various approaches like Clinical Techniques, prosthodontic management, use of certain pharmacological agents and various psychological techniques can be used for the treatment of gagging.

Clinical Intervention

Certain simple methods like use of table salt on the tip of the tongue approximately for 5 seconds can prevent the gagging. The mechanisms seems to be an extinct phenomenon. Gag reflex is prevented by simultaneous stimulation of the chorda tympmani nerve supplying anterior two third of the tongue, preventing the stimulation of hypoglossal nerve which is mostly involved in the gag reflex.

Careful stimulation of the hard palate with a toothbrush having length graduation marks on the handle can also be a useful tool in the prevention of gag reflex. This provides an idea of the extent to which the palate can be safely manipulated without stimulating the gag reflex.

Prosthodontic Management

During impression taking, always avoid using impression material of thin consistency. Select appropriate size of the impression tray. Over extensions should be carefully avoided.

ABSTRACT

Gagging is a normal protective reflex to prevent foreign bodies entering the trachea. Some individuals are more prone towards gagging. Various local and systemic factors such as alcoholism, gastrointestinal reflux and foreign bodies irritating soft palate or choking the oro-pharyngeal region can trigger this reflex. In this paper various techniques to prevent gagging during dental treatment are discussed.

Key words: Gagging, Etiology, Management
Modified maxillary custom tray can be used to prevent gagging. It is easy to fabricate these trays using disposable saliva ejectors at their distal aspects so that the excess impression materials flow through these ejectors without triggering the soft palate area.7

The saliva ejectors should be placed in such a way that they should not produce gagging reflex themselves.7

In one study “soft blow down splint” can be used both in dentate and edentulous patients. It can be fabricated and adjusted very easily. It guides the tongue to more favourable position rather than “pharyngeal guarding posture”.8

Incorporation of local anesthetic solution in alginate can also be a useful method. In this technique, anesthetic solution is first mixed with water and then powder is added. This method is easy to use, minimizes the risk of toxicity and it also dampens the sensitivity of the entire arch.9

Pharmacological Agents

Various pharmacological agents can be used. Sedative agent alone or in combination with other agents can be used. Detailed history, especially regarding the previous medication or drug allergy must be taken before giving any medication to the patient. When all the treatment fails then general anesthesia is the treatment of choice.10

Relative analgesia or inhalation sedation by using agents like Nitrous Oxide can successfully be used during impression taking procedure for those patients who have strong tendency towards gagging. The dose varies from patient to patient and though the method is effective but should be used cautiously.11

Acupuncture Technique

Acupuncture can also be used. P-6 point located on the forearm and the concave area located between the first and second metacarpal bone (L-14) are considered to be having anti gagging effect, even by applying thumb pressure at this point can prevent the gagging in certain cases.12

Acupuncture alone or in combination with hypnosis can also be used. In the later case the process termed as “Hypopuncture”. It is a simple and effective method covering both the physiological and psychological aspect of gagging.13

Psychological Treatment of Gagging

Various approaches of psychological treatment are successfully employed in the treatment of gagging. Always provide the patient a relaxed and calm environment and always follow the anxiety reduction protocol for each patient. Briefly discuss with the patient about the procedure before starting.

Distraction techniques can be used easily for such patients. In this technique patient’s concentration is diverted away from the gagging just by doing simple actions like asking the patient to raise his one hand or leg turn by turn, starting to count the numbers during taking impression and concentrating on the operator’s verbal orders etc. Advise patients to take deep breath and place their hands on the hand rests of the dental chair while doing so.8

“Soft swallow” method by asking the patient to hold the tip of the tongue behind the upper anterior teeth and undulate the tip back and forth and then do swallowing with the teeth apart is also found successful to prevent gagging.14

CONCLUSION

Gagging is a normal protective reflex mechanism. Some patients have this problem especially during impression taking. It is better to ask any history of gagging or any sort of dental fear. Adopting these approaches singly or in combination can help the clinicians to successfully manage the gagging problems that we frequently come across during different treatment procedures.

REFERENCES