**Review article**

**“Botulinum toxin: an aid for the neuromuscular correction of gummy smile - review.”**

**1Patel DP, 2Thakkar SA \* , 3 Suthar JR**

1Professor and Head, Dept.of orthodontics and dentofacial orthopedics,

Govt.Dental College and Hospital, Ahmedabad-16, Gujarat, India

2,3PG student, Dept.of orthodontics and dentofacial orthopedics,

Govt.Dental College and Hospital, Ahmedabad-16, Gujarat, India

**\*Corresponding Author :** Dr.Sandip A.Thakkar , E-mail : sandip\_thakkar25@yahoo.com

**ABSTRACT**:

A smile is one of the most effective means by which people convey their emotions. When an excess of gingiva superior to the maxillary anterior teeth is displayed upon full smile, it is termed a gingival smile or Gummy smile. Treatment modalities for gummy smile change according to its etiology. One cause of excessive gingival display is the muscular capacity to raise the upper lip higher than average. Several surgical procedures have been reported to improve the condition, but surgery always involves risk and is costly. Botulinum toxin type A (BTX-A) (Botox; Allergan, Irvine, Calif) has been studied since the late 1970s for the treatment of several conditions associated with excessive muscle contraction. Injection with BTX-A at preselected sites is a novel, cosmetically effective, minimally invasive alternative for the temporary improvement of gummy smiles caused by hyperfunctional upper lip elevator muscles.

**Keywords** : Gummy smile, Neuromuscular correction, Botox