Nausea during tooth brushing (Hyperactive gag reflex) and Homoeopathy

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Hyperactive gag reflex

Many people experience severe nausea and even vomiting during brushing their teeth, especially in morning (Psora). This often leads them to be scared of cleansing the mouth and teeth. This condition frequently becomes the most common cause of improper dental/ oral hygiene, which leads to a number of oral morbid conditions like tartar, bad breath (halitosis), pyorrhea alveolaris, gingivitis, glossitis, pharyngitis, tonsillitis, aphthae, dental carries, dental abscess and fistulae, leucoplaikia, cancer etc.

The cause of nausea and even vomiting during teeth brushing or mouth rinsing is hyperactive or exaggerated gag reflex (Psora).

Etymology

Synonyms- pharyngeal reflex, gag reflex, laryngeal spasm
Definition
Body's response to the stimulation of soft palate or posterior pharynx is called as gag reflex. The gag reflex is a protective response that prevents foreign objects or noxious material from entering the pharynx, larynx, or trachea; it is not elicited during a normal swallow (Psora).

It is common with all humans, but it becomes a problem when it becomes hyperactive as an individual finds it difficult to eat certain foods or perform certain activity like tooth brushing. It is a frequent feeding disorder in children. If baby throws up and chokes every time during having certain foods, it could be due to hyperactive gag reflex (Psora). Children with this disorder just refuse to take solid foods or foods with particular consistency.

Pathophysiology
The irritation caused to the pharynx by touching the palate, posterior part of tongue or uvula, always, without fail, evokes a disgusting feeling of nausea and even creates vomiting. There are different levels of sensitivity in different individuals with regards to causes and degree of gag reflex. (Psora)

Gagging is a natural phenomenon which is meant to prevent anything, which is not part of the natural eating and swallowing process, from entering the throat in order to keep the person from choking by obstruction of the respiratory tract. However, gagging may be artificially induced by sticking one’s finger inside the mouth, far down the throat, to orally expel food that was recently eaten (Causa occasionalis). This method is widely used by bulimics, who frequently induce vomiting this way soon after eating.
Whenever, any strange substance enters the throat and touches the soft palate, the back of the throat contracts and a feeling of about to vomit develops (Psora). There is a palatal reflex, consisting of upward movement of the soft palate with ipsilateral deviation of the uvula and a pharyngeal response consisting of visible contraction of the pharyngeal wall. Lesser response include medical movement, tensing, or corrugation of the pharyngeal wall. In addition there may be a head withdrawal, eye watering, coughing, and retching (Psora). The gag reflex involves a brisk and brief elevation of the soft palate and bilateral contraction of pharyngeal muscles evoked by touching the posterior pharyngeal wall or the soft palate.

The glossopharyngeal nerve fibers pick up the sensation whenever an unnaturally large amount of food is swallowed or something other than food is attempted to be pushed down the throat. These nerve fibers transmit the gag sensations to the solitary tract and spinal trigeminal nuclei. Finally, these signals reach the brain which sends back instructions, in the form of electric pulses and chemical signals, back to the pharyngeal nerves to contract and cause such invasive objects to be expelled.

The afferent limb of the reflex area is the glossopharyngeal nerve, the efferent limb in the glossopharyngeal and vagus nerve. Hence individual or combined lesions of the glossopharyngeal and vagus nerves depress the gag reflex, as in neurogenic bulbar palsy.

Causes
Hyperactive gag reflex is characterized by high sensitivity levels in the pharyngeal nerves and adjacent area of certain individuals which leads to elicitation of gag reflex at the slightest instance (Psora).

The most common causes are:

- Aversion to certain textures of food (Psora)
- Certain activities which need to open mouth for a long time, like during a dental job, prolonged mouth opening and certain instruments or solutions stimulate the soft palate and aggravate the feeling to gag (Causa occasionalis)
- Putting something in the mouth other than normal things or food (Causa occasionalis)
• Touching the posterior pharyngeal wall, tonsillar area, or the base of the tongue, with the tip of a thin wooden stick (Causa occasionalis)
• Depressing the tongue with a wooden spatula (Causa occasionalis)
• Use of a torch for illumination of the posterior pharynx (Causa occasionalis)

Fundamentally, anything that brushes against the soft palate and stimulates it, results in a gag. Some pathological conditions that produce gag reflex abnormalities are:

Wallenberg’s syndrome
This is also called as lateral medullary syndrome or posterior inferior cerebellar artery syndrome and is a neurological condition caused by a blockage of the vertebral artery (VA) or posterior inferior cerebellar artery (PICA), ultimately leading to infarction of the lateral medulla. Stroke occurring in this region of the brainstem often leads to motor, sensory, cognitive, perceptual, speech and language deficits. (Psora/ Sycosis/ Syphilis)

Bulbar palsy
This involves the brain stem. Signs and symptoms of bulbar palsy include difficulty swallowing, weak jaw and facial muscles, progressive loss of speech, and weakening of the tongue. (Psora/ Syphilis)

Brainstem glioma
It may cause lack of facial control, droopy eyelids, double vision, headache or headache that gets better after vomiting, nausea and vomiting, weakness and fatigue. Seizures. Balance problems. Numbness in face. (Psora/ Sycosis/ Syphilis)

Myasthenia gravis
Bulbar muscle weakness is common in MG along with weakness of head extension and flexion. (Syphilis)

Basilar artery occlusion
It causes vertigo or headaches which are followed by the hallmarks of BAO, including decreased consciousness, quadriplegiasis, pupillary and oculomotor abnormalities, dysarthria, and dysphagia. (Psora/ Sycosis)

General and local anesthesia
It often causes temporary confusion and memory loss, especially in the elderly as well as dizziness, difficulty passing urine, bruising or soreness from the IV drip, nausea and vomiting, shivering and feeling cold, sore throat due to the breathing tube etc. (Causa occasionalis)

Symptoms
• Overactivity of the gag reflex is generally experienced by infants who are frequently not able to swallow their food properly and tend to throw up much of it
• Overactive gag reflex may lead to sensitivity to certain foods, reactions to some sort of medication
• This may make very difficult dental sessions and lead to difficulties
• Associated symptoms are-
  o head withdrawal
  o eye watering
  o coughing
  o retching
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Diagnosis
Hence there is a variability of response in different individuals, some studies claim the reflex is absent in many normal individuals especially with increasing age, without evident functional impairment. Some others find it in all healthy individuals, although variable stimulus intensity is require to elicit it.

Treatment
Management
Once beginning to gag, one must try to brush that area for about 10 seconds even while he starts feeling gagging. This process is quite unpleasant, but training not to gag naturally involves some gagging. Brushing should be stopped when gagging is unavoidable. Repeated trainings may help. Training to breathe through nose, instead of mouth while brushing, may avoid triggering the gag reflex.

Homoeopathic treatment
Common remedies for gag reflex

Short repertory of gag reflex
COUGH - BRUSHING teeth carb-v. coc-c. cocc. dig. euphr. podo. sep. spong. staph.

EXTREMITIES - TENSION - Shoulders - brushing the teeth, while phos.


STOMACH - NAUSEA - brushing the teeth; on all-c. all-s. ars-i. crot-c. crot-h. merc. nat-m.

STOMACH - VOMITING - brushing teeth, on Coc-c.

THROAT - CONSTRICTION - accompanied by - gagging verat.

VERTIGO - ACCOMPANYED BY - Stomach – gagging cyt-l.

Bibliography

Encyclopedia Homoeopathica

Radar 10

Poisoning and Drug Overdose > TREATMENT Harrison's Principles of Internal Medicine..., hallucinations, and neuromuscular hyperactivity. Contraindications include asthma and non-anticholinergic cardiovascular toxicity (e.g., cardiac conduction abnormalities, hypotension, and ventricular arrhythmias). Antipsychotics Chlorpromazine, olanzapine, quetiapine.
Nervous System Disorders Pathophysiology of Disease: An Introduction to Clinical Medicine, 7e... glia, or both. The resultant dysfunction is expressed by either neuronal hyperactivity, as seen during seizures, or decreased activity of neurons, as observed after a stroke. The specific functional abnormalities observed depend on the network of neurons affected...

The Cytoplasm > ASSESS YOUR KNOWLEDGE Junqueira's Basic Histology, 14e... shows dysarthria, saccadic extraocular eye movements, and a hyperactive gag reflex. There is increased tone in all extremities. Polymerase chain reaction reveals one normal band with 20 CAG (trinucleotide) repeats and the other with 49 CAG repeats. Modulation of respiration and mitochondrial membrane...

Anesthesia > Course of Recovery and Common Perioperative Complications in Older Patients Hazzard's Geriatric Medicine and Gerontology, 7e... delirium. As with medical patients, some patients are hyperactive and aggressive, but many delirium patients are hypoactive and quiet, so monitoring programs are required to reliably detect postoperative delirium. Management resembles delirium prevention and care in other settings (see Chapter 47...

Eating Disorders > PATHOPHYSIOLOGY Principles and Practice of Hospital Medicine, 2e... gastric and intestinal transit times, obsessive preoccupation with food and hyperactivity, all of which escalate anorectic behaviors and cognitions. Similarly, patients who vomit often develop loss of the gag reflex, gastroesophageal reflux, and delayed gastric emptying. These physiological changes...

Neurorehabilitation > A. Symptoms and Signs CURRENT Diagnosis & Treatment: Physical Medicine & Rehabilitation..., and fasciculations. Identification of UMN signs can be more subjective as they can be transient, developing and then disappearing as the more clinically dominant LMN features manifest. In addition, signs indicative of UMN pathology—sustained clonus, hyperactive deep tendon reflexes, spasticity, and a Babinski sign...

Chapter 43. Disorders of the Nervous System Caused by Drugs, Toxins, and Chemical Agents > Acute Barbiturate Intoxication Adams & Victor’s Principles of Neurology, 10e... depressed and oculocephalic and oculovestibular reflex responses are usually abolished. In the early hours of coma, there may be a phase of flexor or extensor posturing or rigidity of the limbs, hyperactive reflexes, ankle clonus, and extensor plantar signs; persistence of these signs indicates that anoxic...

Chapter 1. History and Physical Examination > Physical Examination Clinician’s Pocket Reference: The Scut Monkey, 11e...: Brachioradialis and biceps C5–6, triceps C7–8, abdominal (upper T8–10, lower T10–12), quadriceps (knee) L3–5, ankle S1–2. (Grading system: 4+, hyperactive with clonus; 3+, brisker than usual; 2+, normal or average; 1+, decreased or less than normal; 0, absent). Check for pathologic reflexes: Babinski...