Oro-Facial Conditions in Cancer Patients

Parallel session
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Faculty Disclosure

X  No, nothing to disclose

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2018
28-30 JUNE
VIENNA, AUSTRIA
SUPPORTIVE CARE MAKES EXCELLENT CANCER CARE POSSIBLE

MASCC/ISOO
ANNUAL MEETING ON SUPPORTIVE CARE IN CANCER

www.mascc.org/meeting

#MASCC18
Discussion

• Trismus
• Frey’s Syndrome
• Oral bisphosphated related oral mucositis
Temporomandibular Disorder (TMD)

A collective term of a number of clinical problem

- TMJ
- Associated structures: masticatory, facial and cervical musculature
- Present as pain and loss of jaw function
Trismus in H & N Cancer patient

- A prolonged spasm of the jaw muscle leading to restricted mouth movement (Normal interincisal distance is 40-45mm, 35 mm is the functional cut off point)
- Perceived restriction, and function impairment
- Tumour growth, Surgical defect, Post Radiation fibrosis of muscle of mastication
Trismus is a symptom of

- Primary/secondary tumour growth (NPC)
- Radiation-induced fibrosis
- Surgical reconstruction relapse
Trismus has negative impact to

- Speech
- Nutritional intake
- Oral hygiene
- Compounding the complications of xerostomia, and oral mucositis and associated PAIN further defer active jaw movement
Trismus Primary Tumor Growth
Inflammatory response of ORN will changes the insertion of mastication muscle; and adjacent soft tissue.
Post radiation trismus

Muscle fibrosis occurs progressively as mucositis
A late complication in radiotherapy H & N / Nasopharyngeal carcinoma (5-17%), 2-3 year after Rad completed
Average of 32% reduction of MID 4 year post radiation.
Post Radiation Trismus

June 2009  Oct 2010
Etiology-

- Not fully understand
- Radiation fibrosis
  - Atypical fibroblasts, and large amount of extracellular matrix are deposited
- Gradual decrease in vascularity
- Denervation atrophy of muscle
- Correlated with the radiation field and dose
Assessment of Trismus

- Pain on mandibular movement
- Active ROM: (>25%) was defined as trismus.
- Palpation of masticatory muscles
Trismus Imaging

- Panoramic radiography
  inadequate visuality of articular eminence/ fossa. Limited to the lateral slope and central parts of the mandibular condyles could see erosions, sclerosis and osteophytes of condyle
- Computed tomography (osseous component), MRI, US
Management of Radiation induced trismus

Chronic progressing disease

- The absence of specific treatment, and irreversibility of the condition.
- Daily jaw exercise to maintain ROM
Management

- Dynamic bite opener
- Therabite System
- Stacked tongue depressor (could not do without teeth)

- Coronoidectomy, forced mouth opening under GA
- Oxygen
- Microcurrent
Conservative management

BMJ Case Reports 2012; doi:10.1136/bcr-2012-007326
83 YOF with anterior FOM  SCC T2 N0

Resection and a radial forearm flap, and radiotherapy completed in 1998
Postoperative reconstruction of mandible with implant supported prothesis after HBO in 2000

In 2012, patient presented with 9 Month hx persisted “canker sore” on right lower vestibule. 9812796-

j can dent assoc 2010;76:a156
DYSGEUSIA/DYSPHAGIA
Swallow the tablet with a full glass of water.
Avoid lying down for at least 30 minutes after taking the dose and until after the first food of the day has been consumed.
Do not chew or suck on the tablet.
A pleasant lady presents with persisted flushing and sweating at the left pre-auricular region during meal time.
Early 2000 Pt was experiencing persistence pain and increase swelling in the L parotid area

Oct. 2000 Pt was seen by an ENT specialist

Fine Needle aspirate was obtained from the L preauricular region
Consistent with reactive lymph nodes
Unresolved swelling
March 2001 Superficial parotidectomy
Pathology confirms no neoplasm

Uneventful Recovery
No disfiguring, No neurosensory deficiency
Pt notice a warm sensation, moisture and redness on the L side of the operation site after the first bite of vinaigrette.
Since then symptom progress
Every single meal Pt would have similar transient symptoms.
Because of this, Pt continuously had to pat the L parotid area with a napkin.
Pt was very cautious at social event and as Pt’s co-workers would say “Are you leaking again”
Pt realized this was a condition Pt would have to suffer through out life
CASE STUDY-MINOR STARCH-IODINE TEST
Starch - Iodine Complex

\[ I_2 + I^- \rightarrow I_3^- \]

Iodine slides into starch coil to give a blue-black color
Clinical sweating and redness of the involved skin upon gustatory stimulation.

First described by Dr. Ballilarger in 1853 after drainage of parotid abscess

Observation of similar gustatory sweating after traumatic injuries of the parotid region (e.g. Condyle fractures, blunt trauma, bullet wounds)
DIAGNOSIS-GUSTATORY SWEATING AKA FREY SYNDROME

Dr. Lucja Frey, neurologist (1889-1942)
Pathophysiology

Bottom line:

Injury of auriculotemporal nerve results in misdirected regeneration of parasympathetic fibers of salivary gland onto sympathetic rector's innervating sweat gland.
INCIDENCE –AFTER PAROTIDECTOMY

95% of patient show clinical sign
30-40% of patient noticed the symptoms.
10% of patient will have subjective complaints
Onset from 2 weeks to 2 years post surgery.
TREATMENT OPTION

Surgical: prophylactic or therapeutics
- Prophylactic: Thick skin flap
- Therapeutics: Skin Grafting, Tympanic neurectomy

Medical
- Topical aluminum chloride 20%, Drysol, BID- anti-perspirants
- Topical anticholinergic drug (scopolamine 3%)
- Botulinum toxin A injection
THICK SKIN FLAP

Advance the SMAS to cover the resected parotid gland

Superficial musculoaponeurotic system: a fascial layer overlying the parotid, platysma, and preauricular cheek area
Neurotoxin enters the cytoplasm of peripheral nerves cells by receptor-mediated endocytosis. It then breaks down the synaptosome-associated protein SNAP-25, which is for exocytosis of acetylcholine vesicles.
POSSIBLE S.E OF BOTULINUM TOXIN

Temporary partial weakness of the upper lip, and drooping the eyelid, diplopia
TWO WEEKS LATER

Within 4 – 5 days of treatment, there was no more sweating. There is still some redness and warm sensation with certain foods.
Thank You