Oral medicine in advanced cancer

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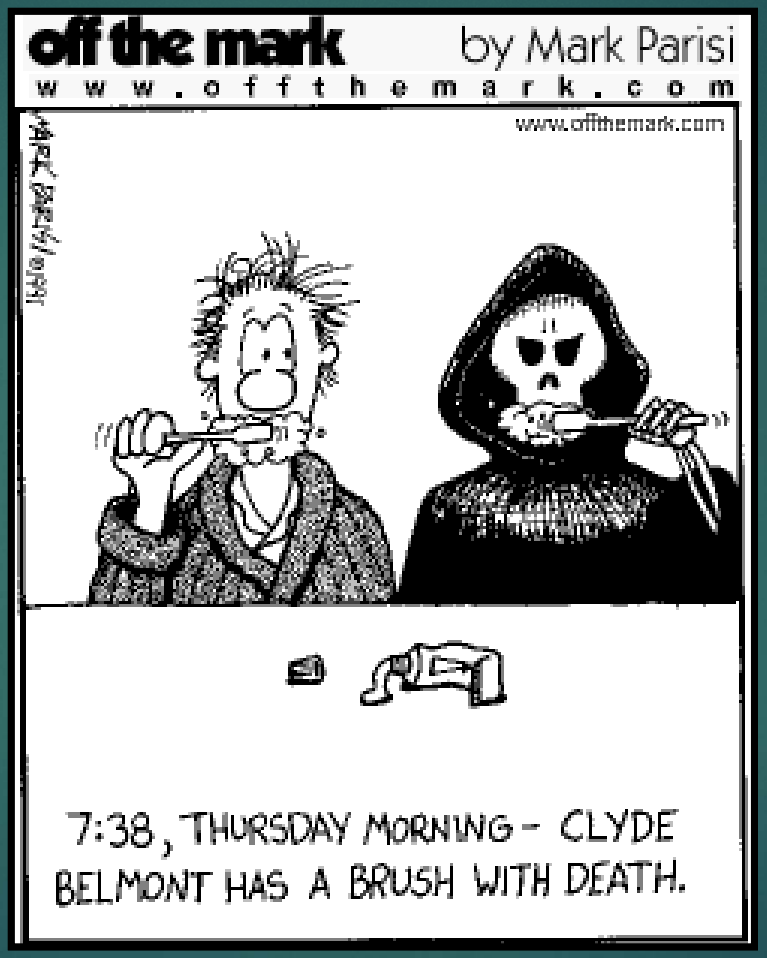
off the mark
by Mark Parisi
www.offthemark.com
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7:38, THURSDAY MORNING - CLYDE BELMONT HAS A BRUSH WITH DEATH.

Overview

- Epidemiology
- Clinical features
- Principles of management

- Salivary gland dysfunction
- (BRON)
- (Oral mucositis)

- Conclusion (case)

Introduction

- Parkinson's disease: xerostomia – 55%; loose dentures – 31%; sore gums – 23%; ulcers – 17%; bleeding gums – 12%, burning sensation – 10%; loose teeth – 8%; sore teeth – 5%

Clifford & Finnerty, 1995

- Multiple sclerosis: orofacial paraesthesia – 37%; orofacial pain – 30%; taste disturbance – 23%; orofacial muscle spasm/palsy – 17%; difficulty chewing – 8%

Fabiano, 1983

Epidemiology

Statistics

"While the individual man is an insoluble puzzle, in the aggregate he becomes a mathematical certainty. You can, for example, never foretell what any one man will be up to, but you can say with precision what an average number will be up to. Individuals vary, but percentages remain constant. So says the statistician".

Arthur Conan Doyle

Statistics

"The average human has one breast and one testicle".

Des McHale

OASis study

- Observational study
- 250 patients with advanced cancer
- Oral Symptom Assessment Scale (cf MSAS)
  - 20 oral symptoms
  - presence
  - frequency, severity, bothersomeness

OASis study

- ≥ 1 oral symptom – 97.6% patient
- Median number oral symptoms – 5
- Range number oral symptoms – 1 to 18

OASis study

Symptom	Frequency (%)
Dry mouth	83.5%
Taste disturbance	55.5%
Coating tongue	47.0%
Lip discomfort	38.5%
Dirty mouth	35.0%
Difficulty swallowing	34.5%
Lip cracking	34.0%
Mouth discomfort	30.5%
Difficulty speaking	27.0%
Difficulty chewing	22.5%

OASis study

Symptom	Frequency (%)
Mouth corner cracking	22.5%
Sensitive teeth	21.0%
Mouth ulcers	17.0%
Bad breath	16.5%
Jagged teeth	16.5%
Altered sensation	11.0%
Denture fitting problems	10.5%
Toothache	10.0%
Burning sensation	9.5%
Bleeding mouth	7.5%

OASis study

Dry mouth (xerostomia):

- 209 / 250 patients (83.5%)
- "Rarely" – 9.1%; "occasionally" – 18.7%; "frequently" – 38.8%; "almost constantly" – 33.5%
- "Slight" – 23.1%; "moderate" – 40.9%; "severe" – 26.4%; "very severe" – 9.6%
- "Not at all" – 18.2%; "A little bit" – 30.1%; "quite a bit" – 19.1%; "somewhat" – 20.6%; "very much" – 12.0%

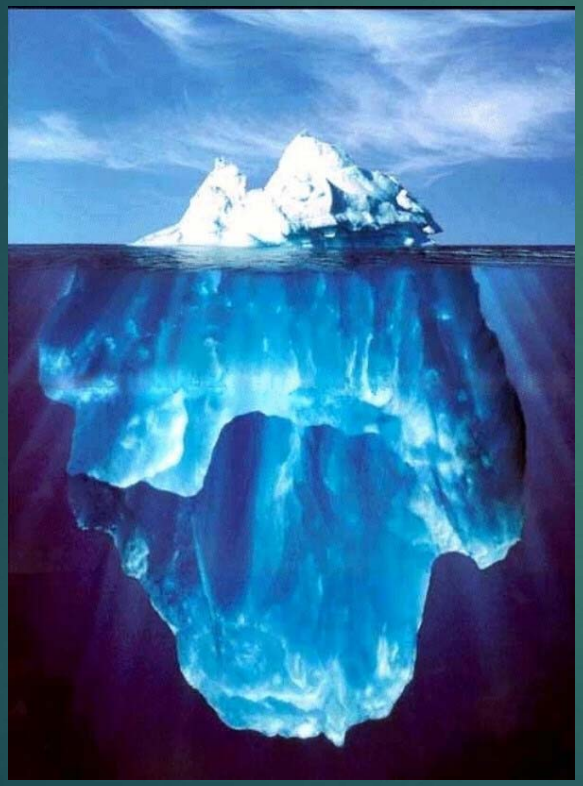
OASis study

Bad breath (halitosis):

- 41 / 250 patients (16.5%)
- "Rarely" – 7.3%; "occasionally" – 29.3%; "frequently" – 46.3%; "almost constantly" – 17.1%
- "Slight" – 22.0%; "moderate" – 53.7%; "severe" – 19.5%; "very severe" – 4.9%
- "Not at all" – 4.9%; "A little bit" – 34.2%; "quite a bit" – 22.0%; "somewhat" – 26.8%; "very much" – 12.2%

Clinical features

Clinical features



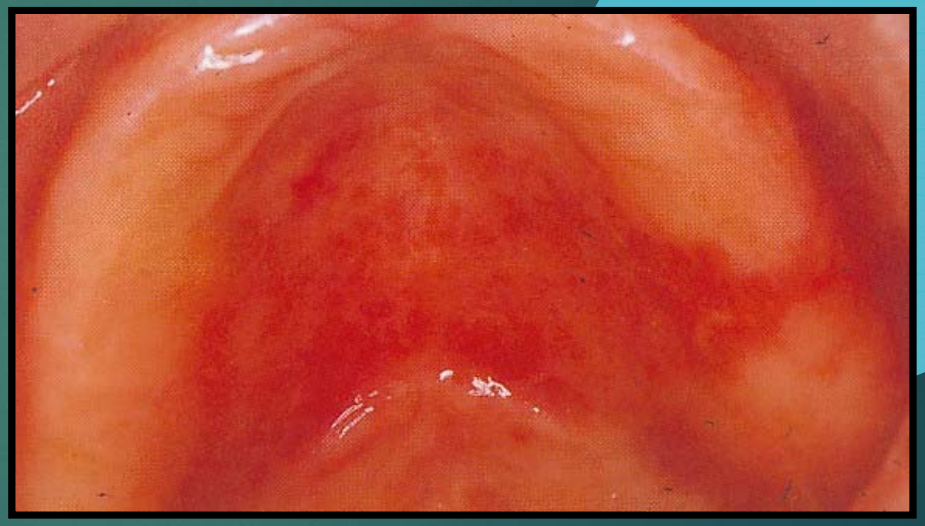
- What's "normal"?
- What's "abnormal"?
- Clinical variants
- Special circumstances
  (e.g. immunosuppression)

Clinical features

Clinical features

Clinical features

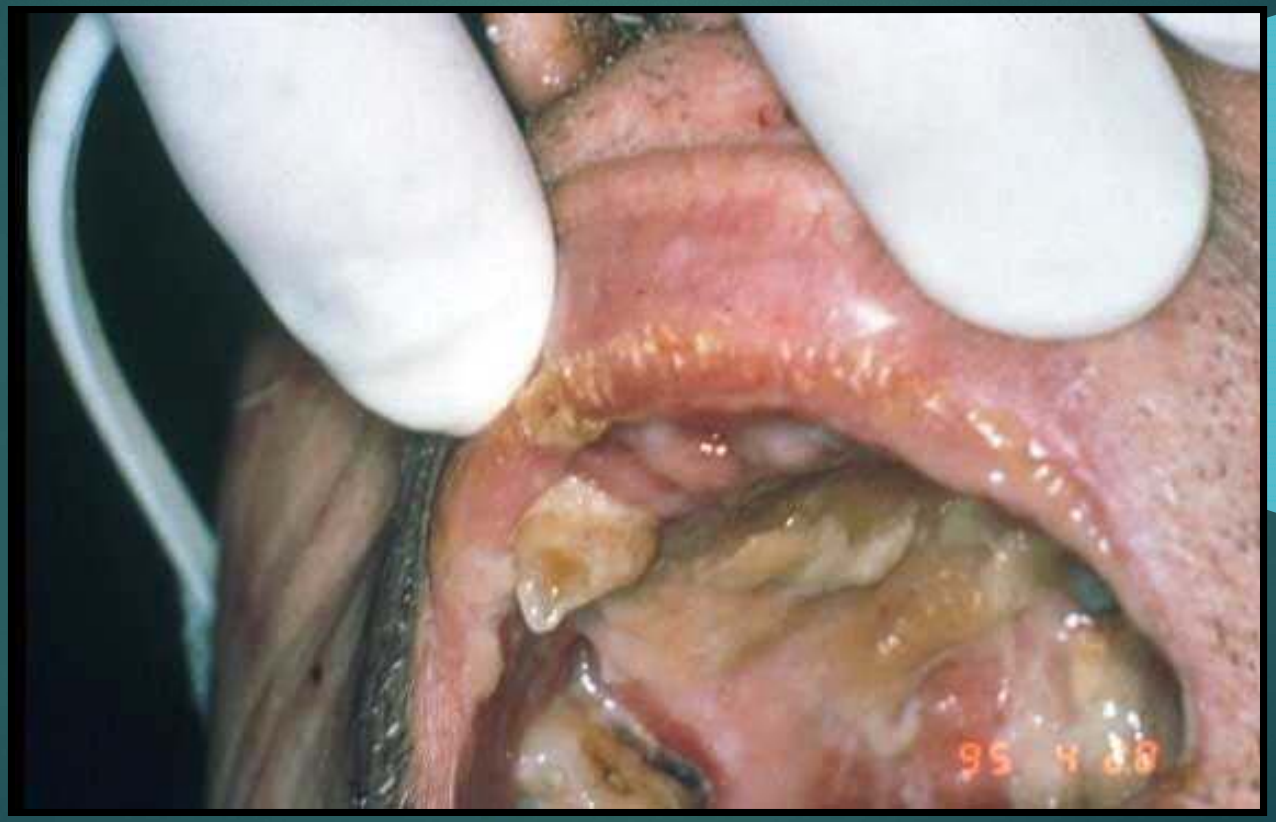
Clinical features



Clinical features

Clinical features

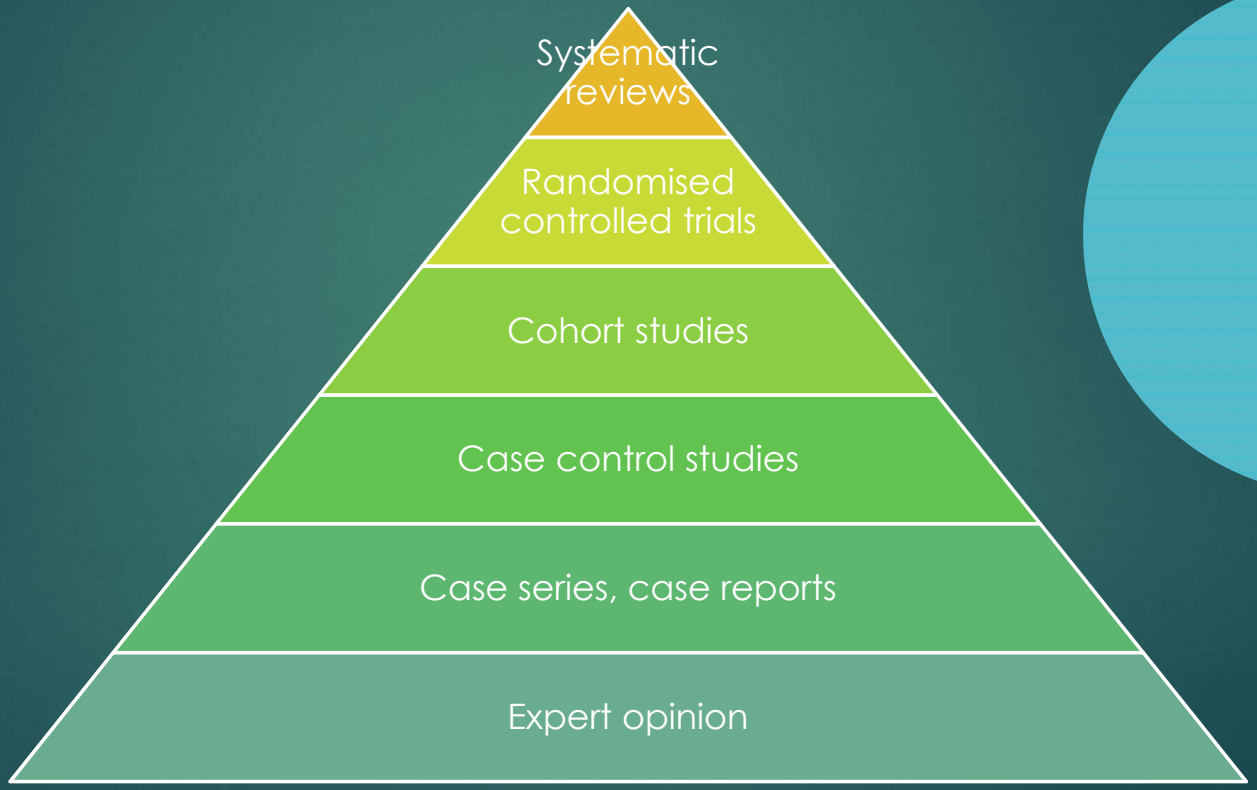
Clinical features



Principles of management

Multidisciplinary working

Evidence-based medicine



Evidence-based medicine

Evidence-based medicine

"We believe that this logical approach to mouth care is more effective than the anecdotal remedies suggested by Regnard et al. Was the recommendation to use gin a misprint*?"

Lucas & Roberts, 1998

*"Semifrozen tonic water and gin" recommended for treatment of dry mouth

Evidence-based medicine

"Dry mouth may be relieved by good mouth care and measures such as chewing sugar-free gum, sucking ice or pineapple chunks, or the use of artificial saliva; dry mouth associated with candidiasis can be treated by oral preparations of nystatin or miconazole, alternatively, fluconazole can be given by mouth".

BNF, October 2016

Evidence-based medicine

Evidence-based medicine

Principles of management

- Screening
- Prevention*
- Treatment

Principles of management

- Assessment
- Treatment
  - definitive
  - symptomatic
- Re-assessment

Oral hygiene

- Maintenance of normal oral hygiene measures
- Management of contributing factors (e.g. fatigue, depression)
- Management of salivary gland dysfunction

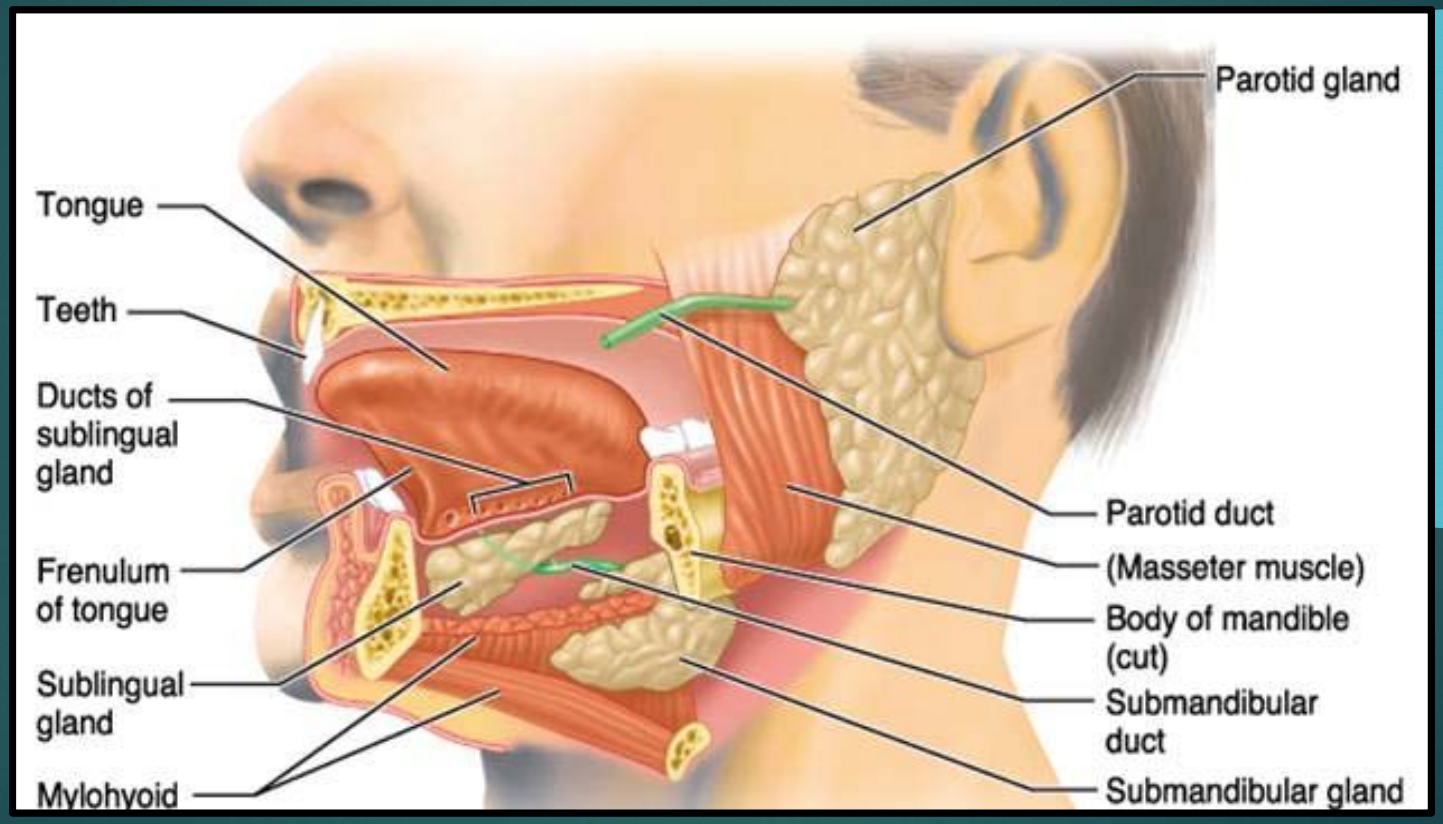
Oral hygiene

- Toothbrushing – twice daily
- Interdental cleaning – once daily
- Denture cleaning – once daily (night)
- Oral mucosa cleaning – after each meal
- (Tongue scraping)

- (Chlorhexidine – difficulties with mechanical control of dental plaque)

Salivary gland dysfunction

Salivary gland dysfunction



Salivary gland dysfunction

Class of molecule	Specific molecules
Electrolytes	Ammonia, bicarbonate, calcium, chloride, fluoride, iodide, magnesium, phosphates, potassium, sodium, sulphates, thiocyanate
Small organic molecules	Creatinine, glucose, nitrogen, sialic acid, urea, uric acid
Large organic molecules	Albumin, amylase, ß-glucuronidase, carbohydrases, cystatins, epidermal growth factor, esterases, fibronectin, gustin, histatins, immunoglobulin A, immunoglobulin G, immunoglobulin M, kallikrein, lactic dehydrogenase, lactoferrin, lipase, lipids, lysozyme, mucins, nerve growth factor, parotid aggregins, peptidases, phosphatases, proline-rich proteins, ribonucleases, salivary peroxidases, tyrosine-rich proteins, vitamin-binding proteins

Salivary gland dysfunction

Category	Examples
General problems	Oral discomfort
	Lip discomfort
	Cracking of lips
Eating-related problems	Anorexia
	Taste disturbance
	Difficulty chewing
	Difficulty swallowing
	Decreased intake of nutrition
Speech-related problems	Difficulty speaking

Salivary gland dysfunction

Category	Examples
Oral hygiene	Poor oral hygiene
	Halitosis
Oral infections	Oral candidosis
	Dental caries
	Periodontal disease
	Salivary gland infections
Systemic infections	Secondary to oral infection (e.g. pneumonia, septicaemia)

Salivary gland dysfunction

Category	Examples
Dental/denture problems	Dental erosion (leading to dental sensitivity/trauma to oral mucosa)
	Poorly fitting dentures (leading to trauma to oral mucosa)
Psychosocial problems	Embarrassment
	Anxiety
	Depression
	Social isolation
Miscellaneous problems	Sleep disturbance
	Difficulty using oral transmucosal Rx
	Oesophagitis
	Urinary frequency / nocturia

Salivary gland dysfunction

"Earlier before this I used to participate in choir singing, nowadays I can't sing at all because my voice is so weak, my vocal cords are so dry and I am afraid to 'lose my head', so I don't participate at all, I avoid all these things and prefer staying at home. I feel sorry and depressed"

Rydholm, 2002

Salivary gland dysfunction

Management:

- Prevention
- Treatment of cause
- Symptomatic treatment
- Prevention complications
- Treatment complications

Salivary gland dysfunction

Symptomatic treatment

- Saliva substitutes
- Saliva stimulants
- Combination

Salivary gland dysfunction

Saliva substitutes:

- water
- "artificial saliva"
- others substances, e.g. cows milk, vegetable oil

- Treat xerostomia
- Minimal effect other symptoms SGD
- Short duration of effect
- Local /systemic adverse effects
- [Acidic]

Salivary gland dysfunction

Saliva stimulants:

- organic acids
- sugar free chewing gum
- parasympathomimetics, e.g. pilocarpine
- other substances, e.g. sugar free mints
- acupuncture

- Treat xerostomia
- Treat other symptoms SGD
- Greater efficacy / patient preference
- Local / systemic adverse effects
- [Acidic]

BRON

BRON

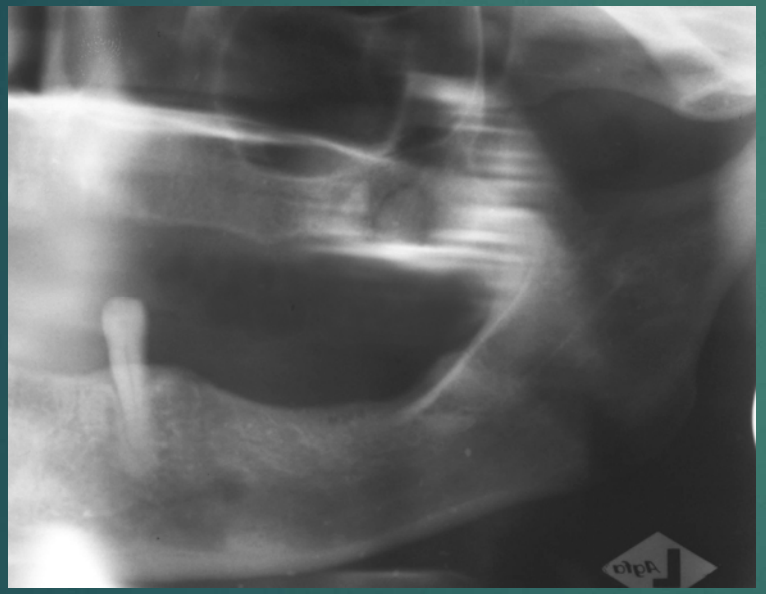
Prevalence BRON

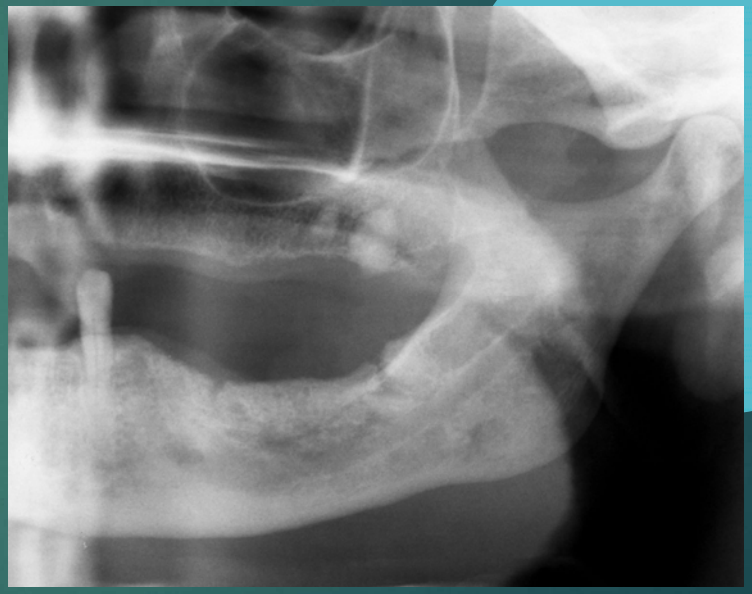
- All studies – 6.1%
- Documented follow up – 13.3%
- Undocumented follow up – 0.7%
- Epidemiologic studies – 1.2%

Oral Care Study Group of MASCC / ISOO, 2010

BRON

BRON





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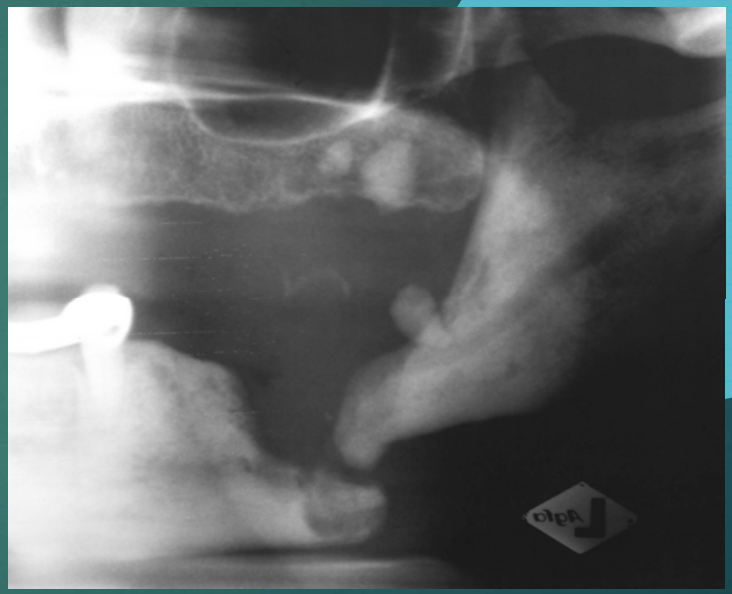
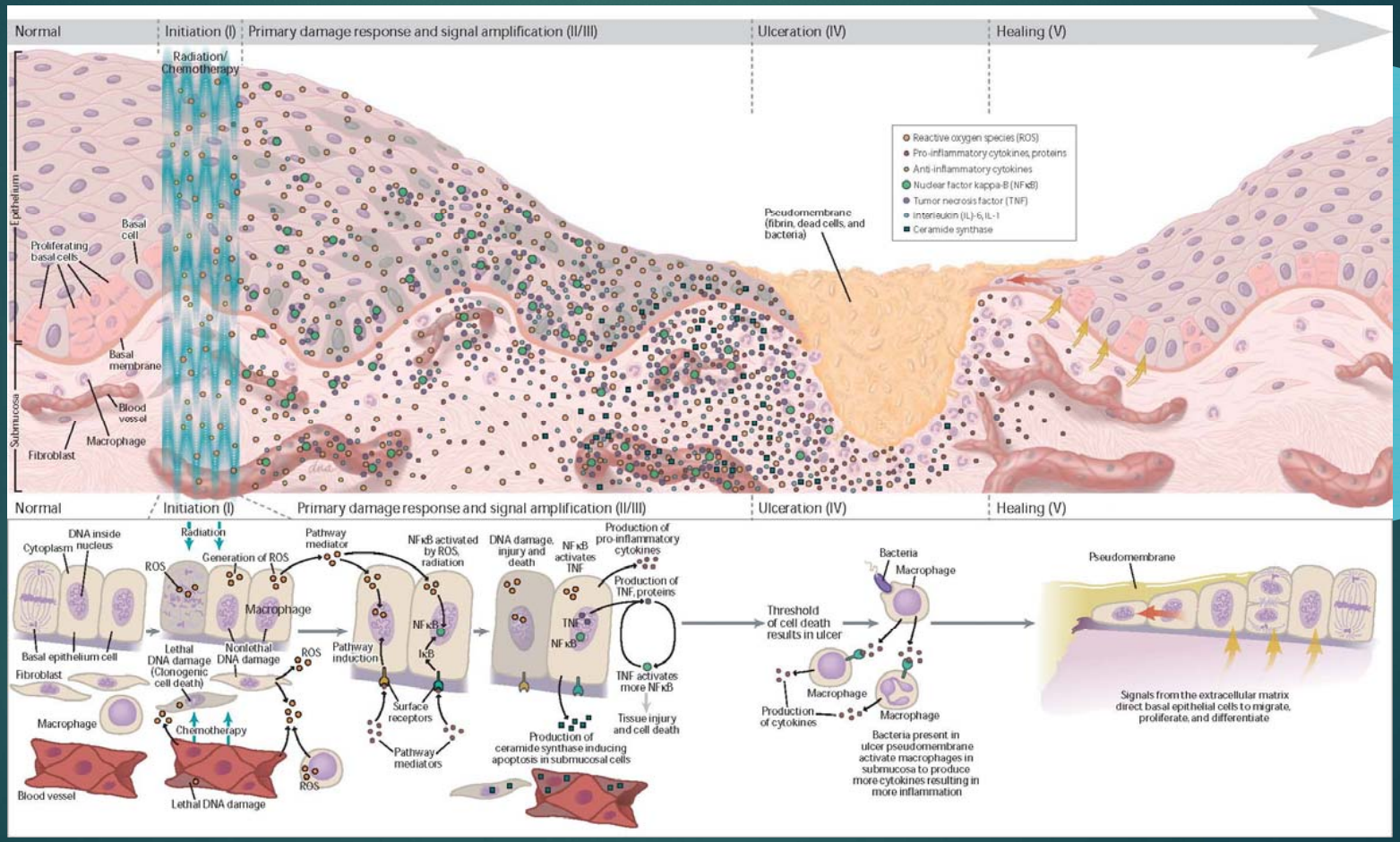


BRON

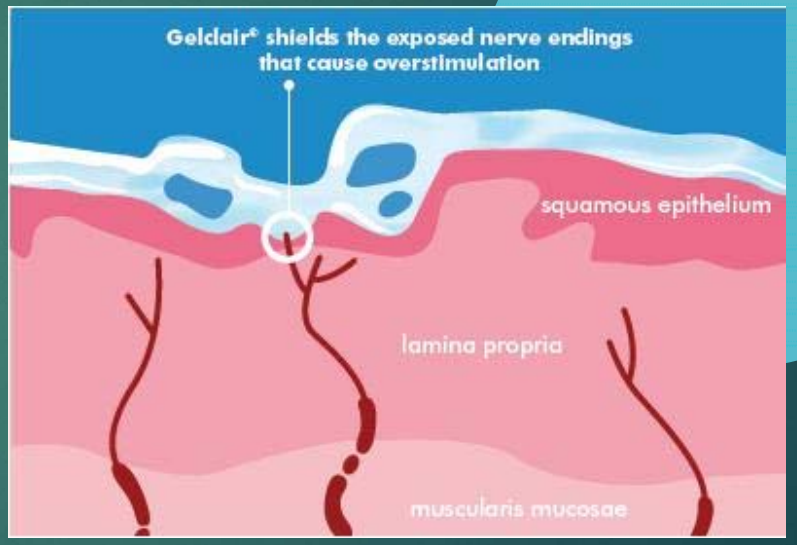
Oral mucositis

Oral mucositis

Oral mucositis



Oral mucositis



Conclusion

Case

Case

Oral complications

"Oral problems are common in cancer patients, and are a significant cause of morbidity and impaired quality of life in this group of patients. Moreover, in some patients they can prevent administration of potentially life-saving treatment, whilst in other patients they can themselves cause potentially life-threatening complications".

Oral complications of cancer and its management, 2010

Oral complications

"Oral problems are usually predictable, and may be prevented or ameliorated by appropriate interventions. However, even when it is not possible to prevent the oral problem, it is usually possible to treat / palliate the oral problem (and so to prevent or ameliorate the associated complications)".

Oral complications of cancer and its management, 2010