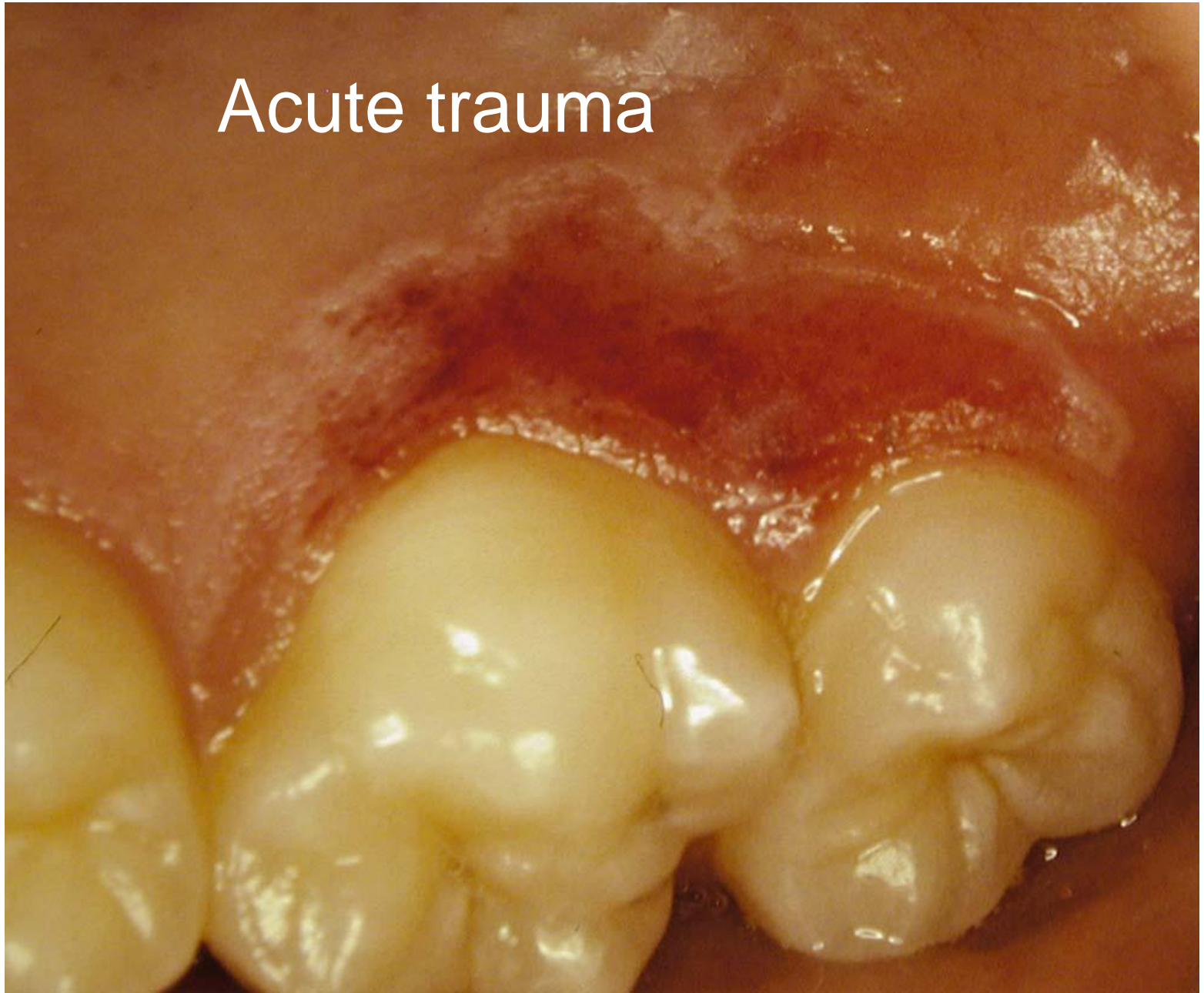


Acute Gingival Conditions

Gerry Linden
Professor of Periodontology
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Acute trauma



Acute gingival trauma

- Common
- Variety stimuli
- Commonly hot food causing burn
- Chemicals
- Enthusiastic toothbrushing
- Ulceration (loss of epithelium)
- Rarely use a dressing (Coe-pac)



Primary herpetic gingivostomatitis

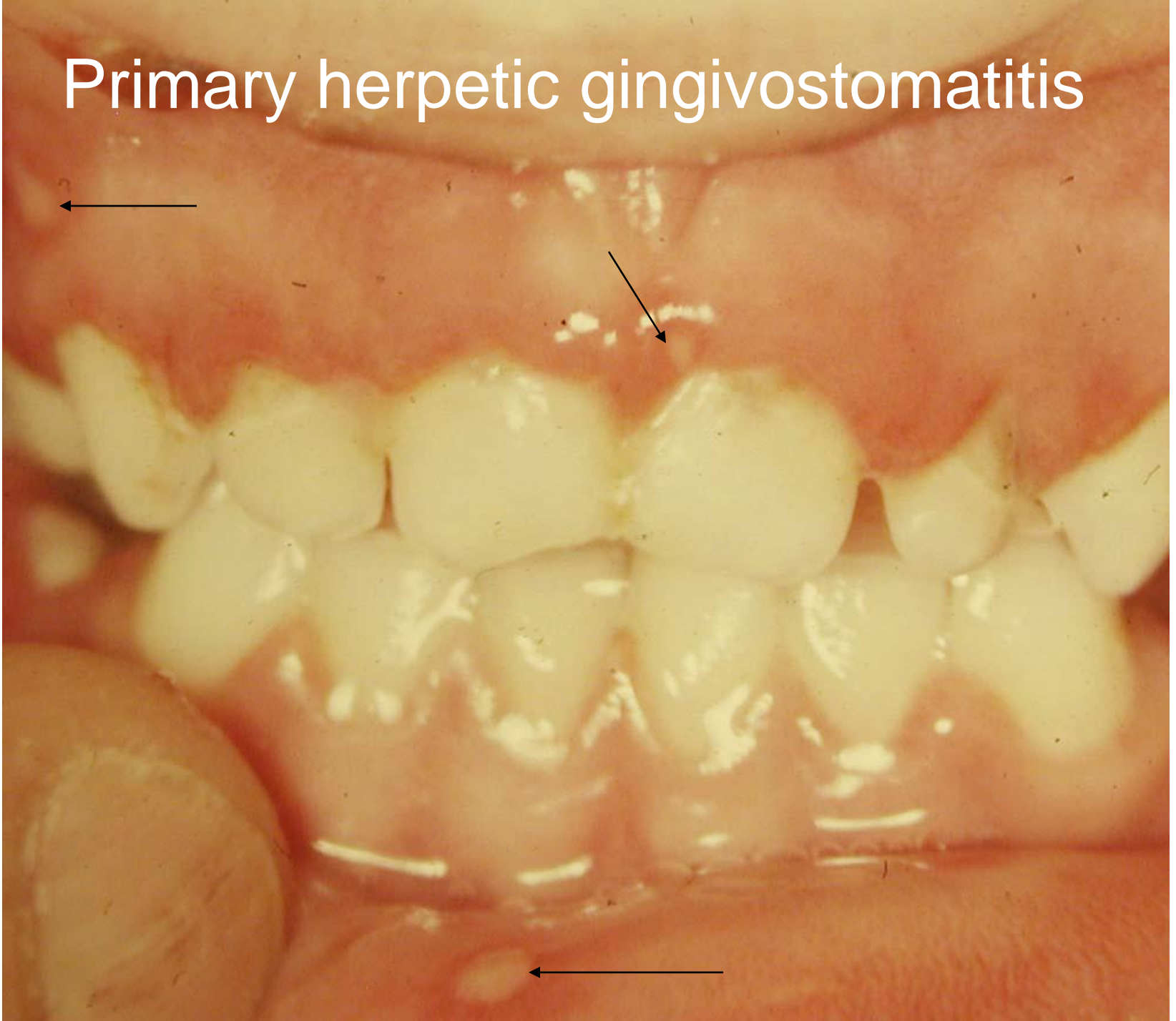
Primary herpetic gingivostomatitis

- Infection by herpes simplex virus type 1
- Acquired through direct contact with infected lesions or body fluids (typically saliva)
- Children or young adults

Primary herpetic gingivostomatitis

- Symptomatic typically vesicular eruptions of the tongue, mucosal tissues and gingival tissues
- Shallow, painful irregular ulcers with a yellowish pseudomembrane surrounded by an erythematous halo

Primary herpetic gingivostomatitis



Primary herpetic gingivostomatitis



Management

- The oral mucosal and gingival features are usually accompanied by pyrexia, lethargy, loss of appetite, fractiousness and hypersalivation
- Pain can lead to dysphagia
- Young children may become dehydrated

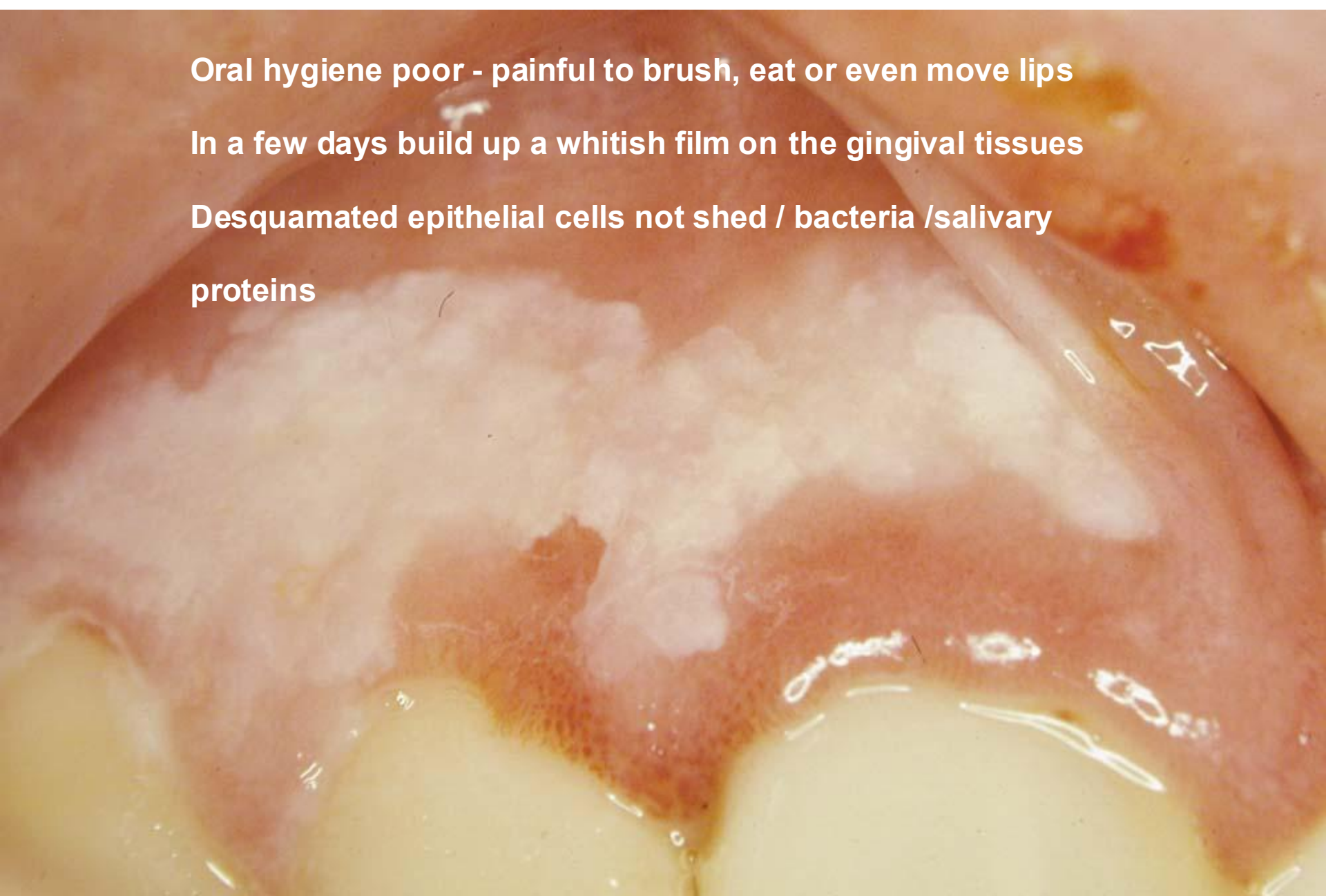
Management

- Maintain fluid intake
- Antipyretics analgesics
- Topical antiseptics
- Antiviral agents – principally for immunocompromised
- Occasionally use antiviral agents in very young
- Ulcers heal gradually in 10–14 days, without scarring

Oral hygiene poor - painful to brush, eat or even move lips

In a few days build up a whitish film on the gingival tissues

**Desquamated epithelial cells not shed / bacteria /salivary
proteins**



Secondary herpetic infection

- Following primary infection HSV-1 enters sensory nerve endings and is transported to the trigeminal ganglion
- Acts as a reservoir for later viral attack of the host
- When herpes simplex is reactivated, viral particles spread from the infected neurones to mucocutaneous sites

Secondary herpetic infection



Secondary herpetic infection

- Lesions at mucocutaneous junctions particularly the lips (herpes labialis)
- Specific antiviral treatment effective if delivered at an early stage
- Highly infective at vesicular stage

Secondary herpetic infection

- Viral particles also be released into saliva (oral shedding)
- May occur after trauma such as intraoral LA injection or periodontal treatment

For review see Arduino P, Porter S. (2008) Herpes Simplex Virus Type 1 infection: overview on relevant clinico-pathological features. *Journal of Oral Pathology and Medicine* 37: 107-121

Herpetiform ulceration

Small crops of ulcers

Mild pain last < 10 days

Often follow dental or periodontal treatment



Acute Ulcerative Gingivitis



Acute ulcerative gingivitis

- Ulcerated necrotic papillae
- Characteristic punched out appearance
- Yellowish white or greyish slough
- Pseudomembrane- fibrin, necrotic masses of white blood cells and bacteria
- Necrosis develops rapidly
- Pain may lead affected individuals to seek treatment

Acute ulcerative gingivitis

- Spontaneous bleeding
- Often interproximal mandibular anteriors
- May be pre-existing chronic gingivitis
- Foetor oris
- Loss of papillary contour pathognomonic
- Necrosis means papillae are separated into buccal and lingual portions with depression or crater where loss of tissue

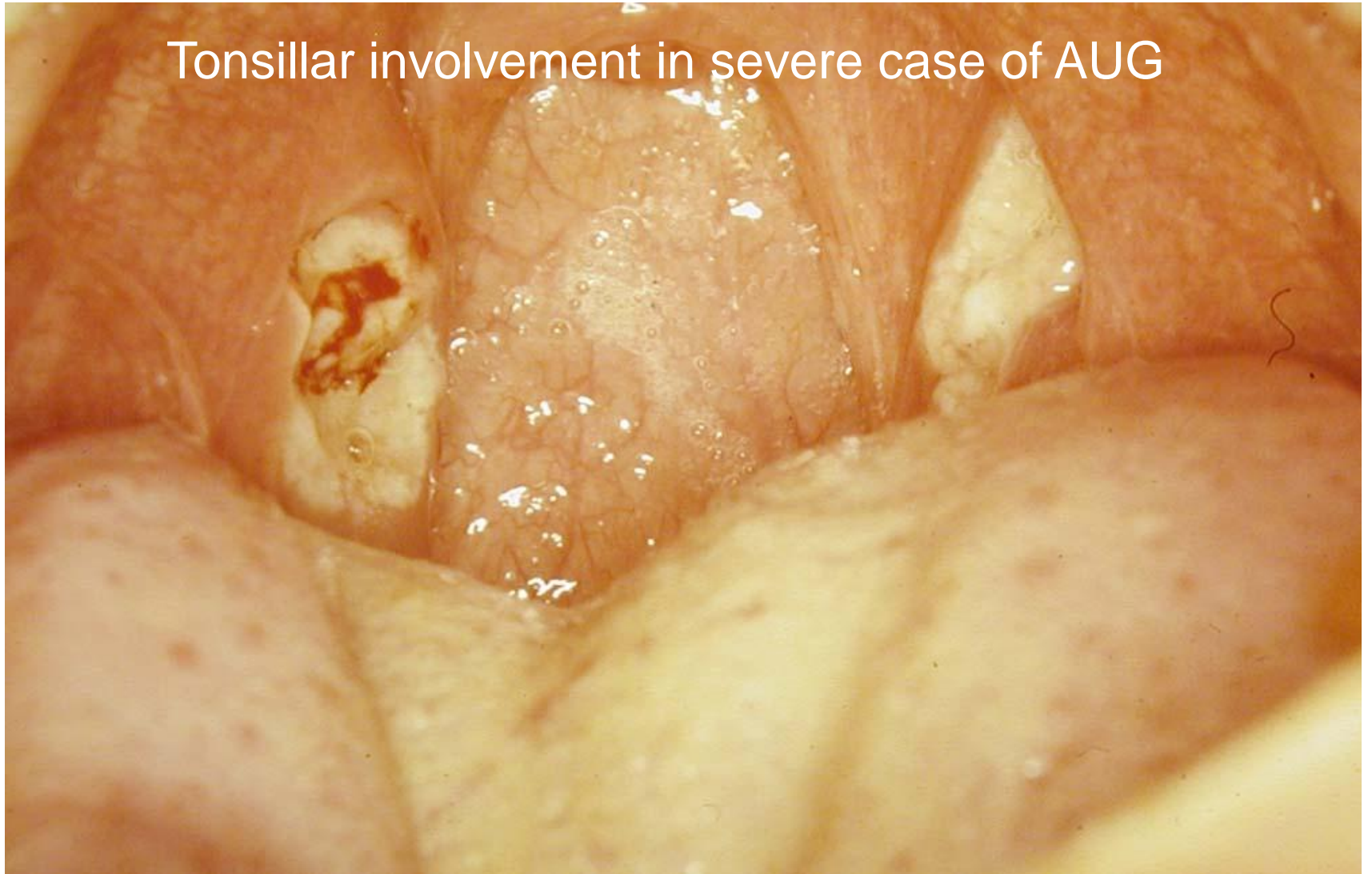
Risk factors

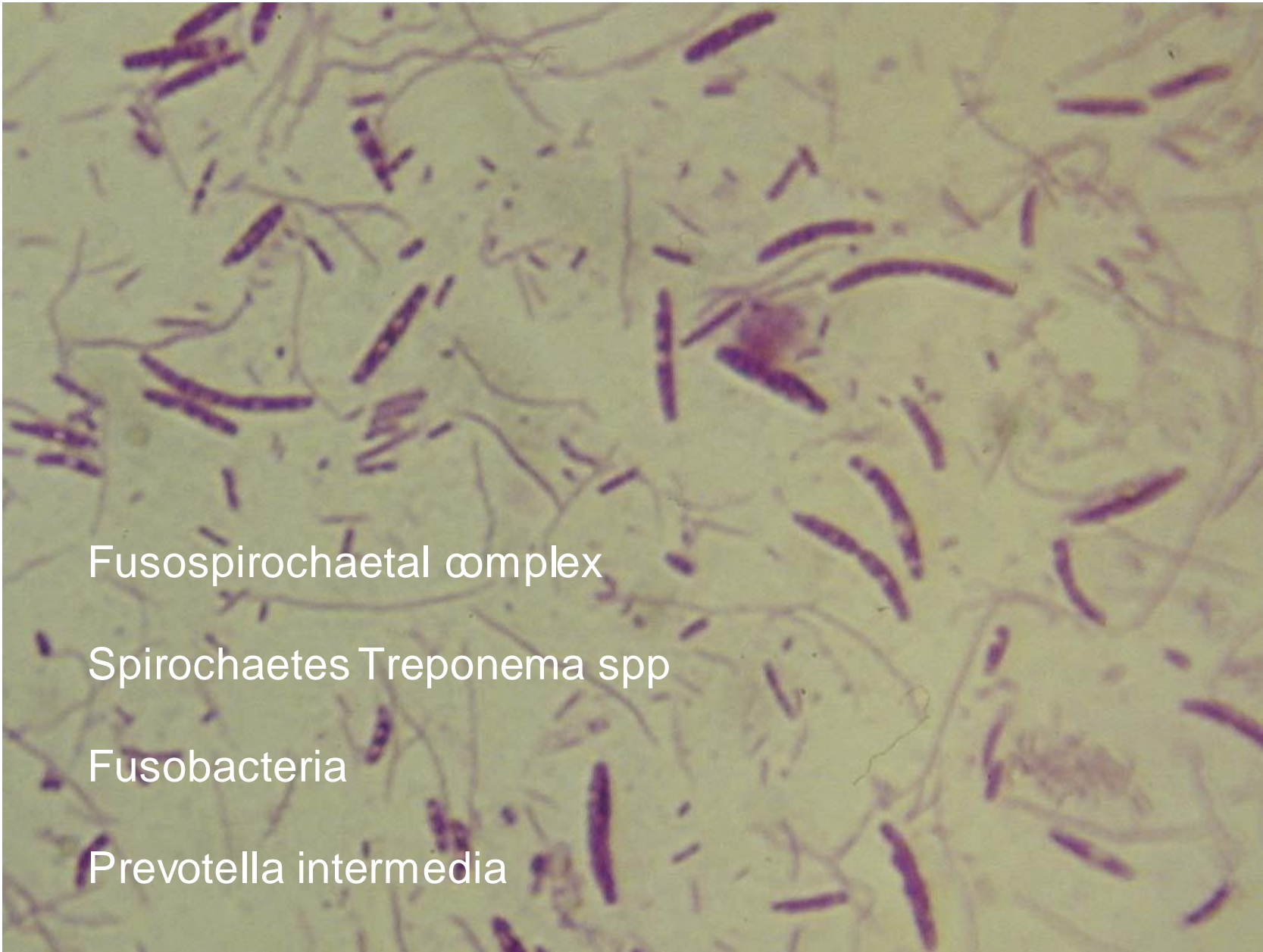
- Smoking >95% cases may be dose related
- Stress-psychological
- Inadequate sleep
- Poor OH/ history previous AUG
- Systemic diseases which impair immunity (HIV /leukaemias)

May be loss of periodontal attachment



Tonsillar involvement in severe case of AUG





Fusospirochaetal complex

Spirochaetes Treponema spp

Fusobacteria

Prevotella intermedia

Treatment of AUG





- Identify and address risk factors
- Initial debridement
- OHI/ mouthrinse with hydrogen peroxide mouthwash or chlorhexidine
- Antibiotics

Metronidazole 200 mg t.i.d for 3 days
or Amoxicillin 250mg t.i.d. for 3-5 days

3 days after
course systemic
antibiotics



Management

- Definitive scaling
- OHI/motivation
- Address and modify risk factors
- Review
- Possible gingivoplasty
- If persistent despite appropriate treatment investigate whether underlying systemic condition

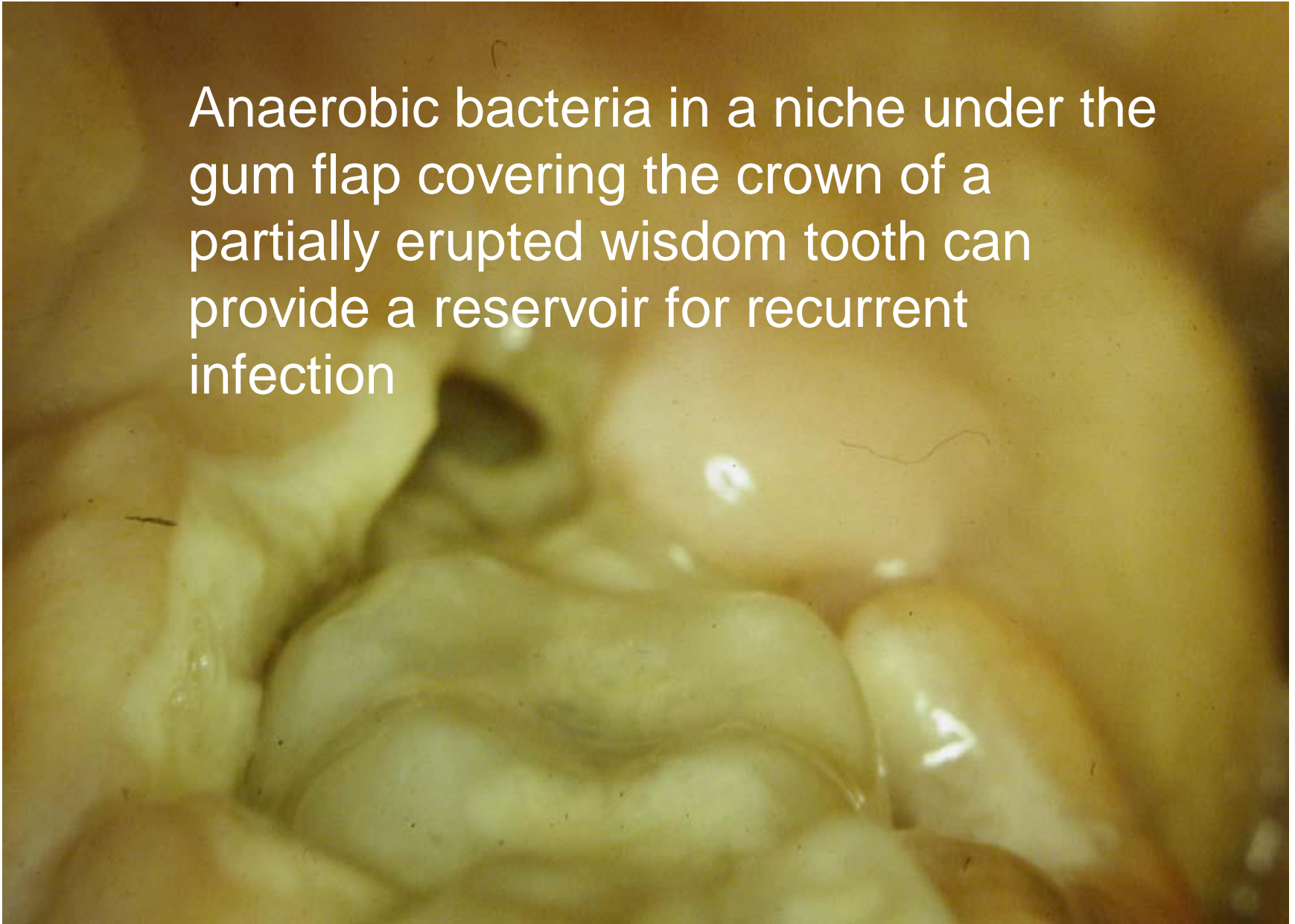
Recurrent AUG

- Refractory to treatment
- Good OH
- Addressed risk factors
- Investigate underlying cause

HIV

White cell disorder

Anaerobic bacteria in a niche under the gum flap covering the crown of a partially erupted wisdom tooth can provide a reservoir for recurrent infection





Affected papillary region has been reshaped by gingivoplasty

Crater which may result in plaque accumulation and recurrence

This is a clinical photograph of the upper anterior teeth. The gingiva (gum tissue) has been surgically reshaped (gingivoplasty) to create a more uniform, scalloped contour. A white arrow points to the newly shaped gingival margin. Another white arrow points to a deep, V-shaped crater (a defect in the gingival tissue) located between the central incisors, which is noted as a potential site for plaque accumulation and recurrence of gingivitis.

Crater which may result in plaque accumulation and recurrence

Leukaemias

- Malignant proliferation of white blood cells
- Acute or chronic
- Can present as gingival swelling or bleeding
- Can exacerbate periodontitis; increased incidence of acute herpetic GS; acute ulcerative gingivitis or fungal infections
- Treat oral problems aggressively

Blood oozing from gingival margins
due to secondary thrombocytopenia
in chronic myeloid leukaemia

