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內文：

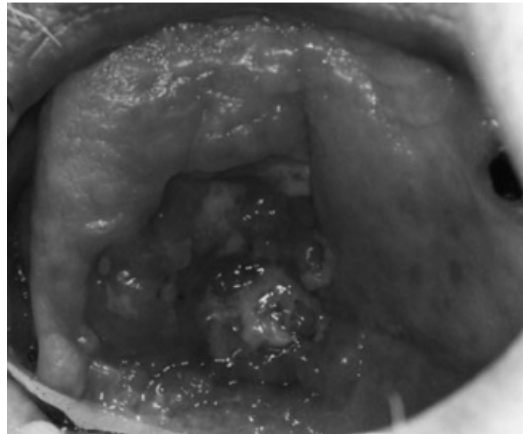
#### Introduction:

1. Oral candidiasis is the most common opportunistic oral infection in humans and it has received increasing attention, presumably due to its increased prevalence world wide
2. The majority of infectious episodes are caused by *Candida albicans*, a dimorphic fungal commensal organism of the gastrointestinal and lower female reproductive tracts
3. *Candida albicans* asymptomatically colonises epithelial surfaces presumably in the blastoconidia form that it takes in nature. As a result of this exposure, many healthy individuals have developed detectable *Candida*-specific immunity, which presumably protects against infection.
4. However, numerous studies have shown that several *Candida* species possess a multitude of virulence mechanisms leading to successful colonization and infection of the host
5. Oral candidal colonization and candidiasis is increased with
  - (1) Xerostomia
  - (2) immunodeficiency
  - (3) denture wearing
  - (4) smoking
  - (5) DM (high carbohydrate diet)
6. OSCC (Oral squamous cell carcinoma) :
  - (1) One of the most common types of cancer in the world, account for more than 95% of all malignant neoplasms in the oral cavity.
  - (2) Many parts of the world as its high incidence, unsatisfactory 5-year survival rate and treatment can result in severe functional defects.
  - (3) Presents as an asymptomatic chronic ulcerative lesion with elevated borders and areas of tissue necrosis, mainly affecting elderly patients with smoking habit
7. The aim of this article is to report a case of oral candidiasis with an atypical presentation resembling an OSCC in a 64-year-old male diabetic patient.

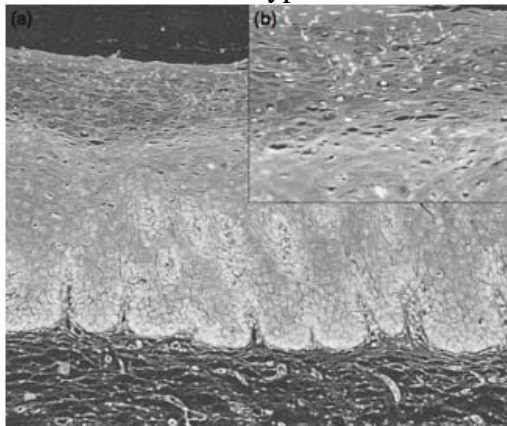
#### Case Report:

1. General data

- (1) Age:64-year-old
  - (2) Sex:male
  - (3) Personal habit:
    - ⊖ Alcohol:(-)
    - ⊖ Betel nut:(-)
    - ⊕ Cigarettes:(+) 60 cigarettes/day
  - (4) No contributory past medical/dental history
2. Chief complaint:  
“hole in his palate”
3. Present illness  
referred from general dental practitioner, which under clinical evaluation led his dentist suspect an OSCC. Intraoral evaluation, a large lesion affecting the posterior portion of the hard palate and the anterior portion of the soft palate of the right side, presenting with erythematous and ulcerated areas, elevated borders and central portions resembling necrosis was observed. The patient underwent blood-fasting glucose dosage to evaluate the presence of DM and results revealed a laboratory value of 543 mg/dl. Use prosthesis more than 20 years.

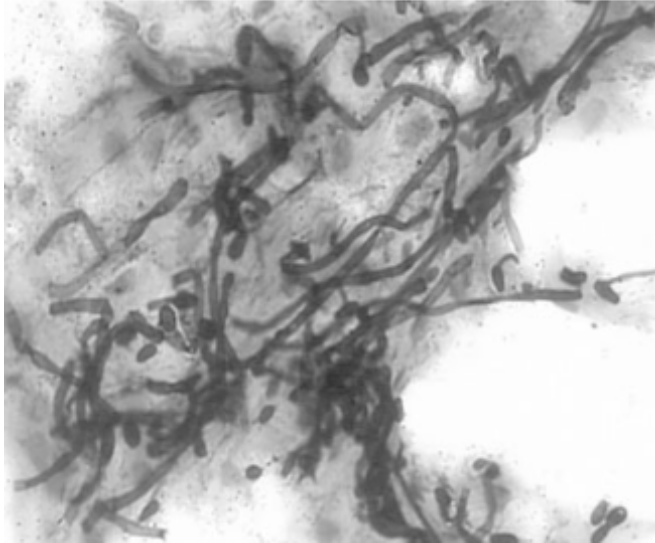


4. Incisional biopsy & pathological analysis:  
revealed an unspecified chronic inflammatory process, ulcerative areas and hyphae of *Candida albicans*.



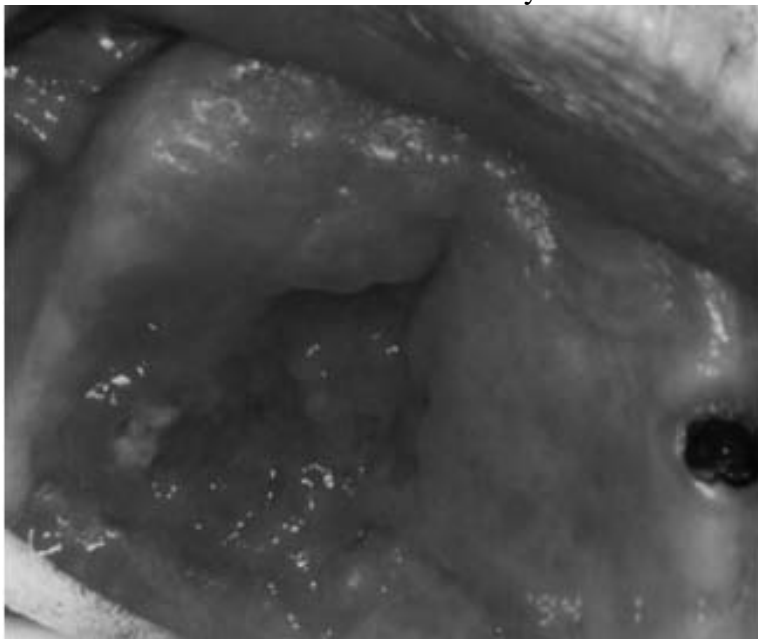
**Figure 2** Histopathological analysis using the periodic acid-Schiff staining revealing the presence of hyphae of *Candida albicans* in the superficial layer of the epithelium. (a) Original magnification  $\times 20$ . (b) Original magnification  $\times 40$ .

5. Cytological examination using the periodic acid-Schiff(PAS):

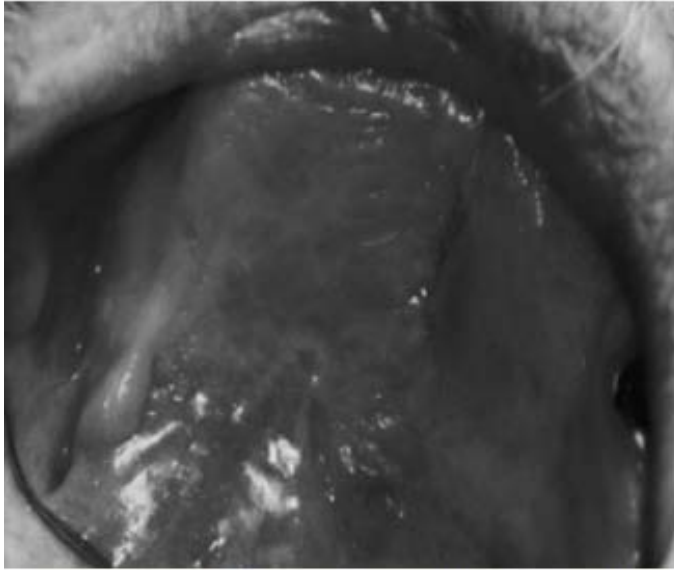


6. Treatment plan

- (1) Refer to an endocrinologist to control DM
- (2) Use of nystatin 500'000 IU ,QID x 10 days.  
Retaining the drug in the mouth for some minutes before swallowing.
- (3) Change his prosthesis,not sleeping wearing his prosthesis and to wash it at least once daily



**Figure 5** Good repair process ten days after treatment beginning.



**Figure 4** Hard and soft palate completely healed after 25 days of treatment.

#### Discussion

1. Although non-albicans Candidiasis species are emerging as significant pathogens, *C. albicans* still occupies the top of the list for causing all forms of candidiasis(40-60%)
2. Factors:
  - (1) Systemic disease (DM,neutropenia,AIDS)
 

This fungus may change from commensal to pathogenic microorganism in the mouth in relation to oral and systemic conditions,hence,once the host is afflicted with any immune-compromising condition (DM,neutropenia,AIDS) it will become more liable to candidiasis.
  - (2) Cigarette
 

The habit of cigarette smoking is clearly recongnized as a predisposing factor for oral candidiasis.In a recent study, Shin et al., using 180 healthy subjects, found a significant relationship between cigarette smoking and oral candida carriage.However,the exact mechanism by which candida carriage may be affected by cigarette smoking is not yet fully established.It has been suggest that smoking may ⊕lead to localized epithelial alterations,increasing oral epithelial keratinization and subsequent enhancement of hydrophobicity.⊖depress the activity of oral leucocytes and reduces gigiva exudate with the consequence that the carriage of leucocytes and immunoglobulins.  
Increases adrenaline level in blood.->increases blood glucose level
  - (3) Saliva
 

⊕ Increased salivary glucose,may form chemically reversible glycosylation products in tissues during hyperglycaemic episodes.It is possible that accumulation of such glycosylation products on buccal

epithelial cells may increase the number of available receptors for *Candida*.

- ② Qualitative & Quantitative  
Saliva contains a variety of anti-candidal agents such as transferrin, lactoferrin, secretory immunoglobulin A (sIgA), defensins and histatins (Candida adhesion-inhibiting proteins)
- ③ Age  
Depends on senile hypofunction of the parotid and submandibular glands, on systemic disease and, especially, on the side effect of medication. Geriatric patients present with oral candidiasis prevalence ranging from 34-51%

(4) Acrylic resin denture

- ① A large body of evidence indicating that *Candida* is able to adhere to acrylic resin denture.
- ② Poor denture hygiene by patients is common and by virtue of the lack of local saliva and high pH, *Candida* can easily proliferate beneath and within the denture.
- ③ Ill-fitting prosthesis may cause palatal trauma, altering the mucosal surface and allowing a direct mucosal insult by tobacco smoke, facilitating fungal entry into the adjunct mucosa and consequent *Candida* colonization.

3. D.D. to OSCC

Lesion, smoke (main risk, 7 times)

Dentist must be aware of older patients presenting with lesions with atypical features, and that it is extremely important and necessary that an incisional biopsy examination be performed in these cases.

題號	題目
1	Which one of the various types of clinical lesions of candidiasis is wrong (A) Pseudomembranous-red necrotic (B) Erythematous-red (C) Atrophic-red (D) Hyperplastic-white, red raised
答案(A)	出處：Oral & Maxillofacial Lesions Ch.5,6,7,8
題號	題目
2	Which one of predisposing conditions to oral candidiasis is wrong (A) Drug/Medications (Multiple antibiotic regimens) (B) Endocrinopathies (DM) (C) Immunodeficiency (AIDS) (D) Systemic disease (Hypertension)
答案(D)	出處：