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內文：

**Aim:**

To present the management of a patient with pernicious anemia afflicted with recurrent aphthous stomatitis (RAS)

**Introduction:**

- RAS is an inflammatory ulcerative condition of the oral mucosa characterized by painful and recurrent ulcers
- One of the most common oral diseases worldwide
- Up to 25% of the general population
- Fifty percentage three-month recurrence rates
- Clinical features --- minor, major, and herpetiform
  - Minor RAS : round, clearly defined, small, painful ulcers
    - heal in 10 to 14 days
    - without scarring
  - Major RAS (Sutton's disease): the lesions are larger (>1.0 cm)
    - last for six weeks
    - frequently scar
  - Herpetiform RAS : multiple clusters of pinpoint lesions
    - last seven to ten days
    - coalesce to form large irregular ulcers

Contributing factors :

- Local trauma, Smoking, Stress, Hormonal status, Genetics, Hematinic deficiencies (iron, folic acid, vitamins B2, B3, B6, B12, and C), Immunological factors, Microorganisms, Systemic diseases
- Imerslun-Grabeck syndrome (Broides et al.) had a vitamin B12 deficiency associated with a neutrophil chemotactic defect → may cause RAS
- Pernicious anemia : vitamin B12 malabsorption induced by chronic gastritis

- The relation between deficiency of vitamin B12 and RAS have been rarely reported in the literature
  - \* RAS and concluded deficiency of vitamin B12
    - Wray et al.--- 3.8%
    - Piskin et al.--- 22.8%
    - Koybasi et al. --- 35.2%
    - Burgan et al.--- 26.6%

### Case Report:

#### ■ Diagnosis

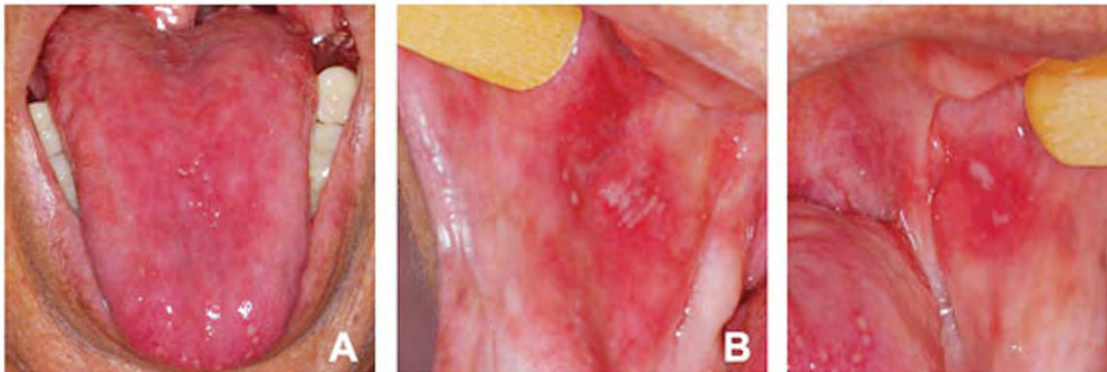
A 71-year-old-woman

#### ■ C.C.

Painful recurrent oral ulcers evolving over the past three years

#### ■ P.E.:

- Multiple ulcers covered with a grayish pseudomembrane surrounded by an erythematous margin located in the tongue and in the buccal mucosa
- Depapilation of the tongue and erythematous buccal mucosa



#### • Laboratory tests

folic acid, iron, ferritin, vitamins B2, B6, and B12 levels,  
serum hemoglobin, and medium corpuscular volume(MCV)

low serum vitamin B12 (133 pg/ml)

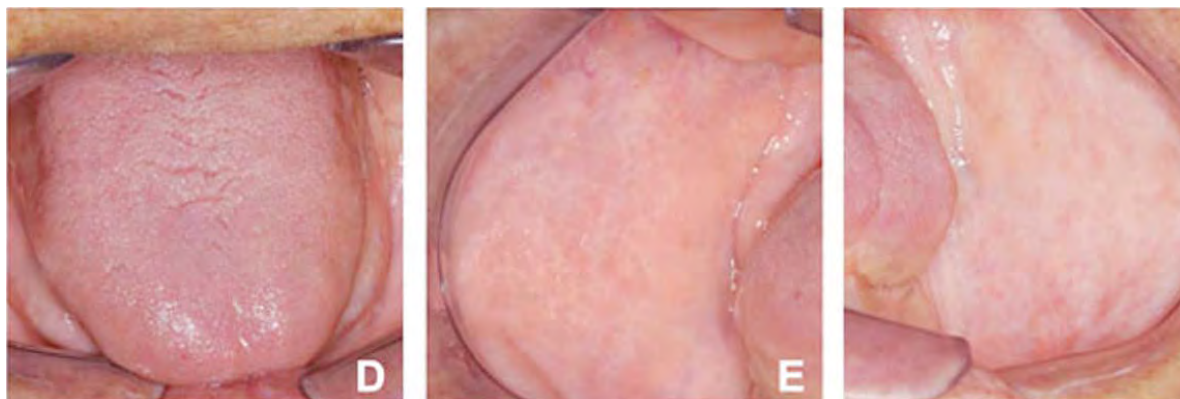
low serum hemoglobin ( $3,670,000/\text{mm}^3$ ) along with a MCV of 104.1 fl

- Gastroduodenoscopy : no macroscopic abnormality
- Gastric biopsy : mucosal atrophy in the gastric corpus with evidence of intestinal metaplasia
- *Helicobacter pylori* detection (-)

→ Diagnosis : **pernicious anemia along with RAS caused by malabsorption of**

**vitamin B12****■ Treatment**

- Administration of 1.0 ml of hydroxocobalamin IM twice weekly over four weeks followed by 1.0 ml once weekly for four weeks
- Clinical resolution of the RAS and the tongue depapilation and buccal mucosa was apparent after two months



- At 12 months : free of the RAS  
normal levels of hemoglobin, MCV, and vitamin B12,  
continued with IM administration of vitamin B12 and 2 ml of  
hydroxocobalamin for 60 more days

**Discussion**

- No principal cause has been discovered to date
- The clinical features along with the patient response to the management of the case reported here supported a diagnosis of RAS related to vitamin B12 malabsorption
- The deficiency of vitamin B12 is frequently associated with glossitis but not generally thought to induce RAS
- The precise role of vitamin B12 deficiency in the pathogenesis of RAS is unclear, the suppression of cell-mediated immunity and changes in the cells of the tongue and oral mucosa have been described
- Hematinic deficiency is twice as common in RAS patients than in controls (Studies from the United Kingdom, United States, and Spain)
- The patient was 71 years old, which is not common
- The patient also presented with erythematous mucosa and depapilation of the tongue which are characteristic symptoms of other problems

- Patients with RAS generally do not require treatment
- It is important to determine possible hematinic deficiencies or allergies in order to provide appropriate therapies
- Weusten and Van de Wie reported the similiar treatment modality

**Summary & Clinical Significance**

- The association of RAS with vitamin B12 malabsorption is a rare event
- Evaluation of the predisposing factors is imperative in treating patients with RAS including vitamin B12 malabsorption
- Determination of the levels of vitamin B12 should be the basis for replacement therapy.
- Clinicians must alert to the possibility this lesion could be a signal of systemic disease

題號	題目
1	下列有關 minor RAS (recurrent aphthous stomatitis)的敘述,何者為非? (A) 又名 Sutton’s disease (B) 10~14 天癒合 (C) 通常沒有 scar (D) Size 小於 1 cm
答案 (A)	出處：J Contemp Dent Pract 2009 January; (10)2:083-089 [A]: 為 major RAS
題號	題目
2	復發性口腔炎(recurrent aphthous stomatitis, RAS)與單純疱疹病毒(Herpes simplex virus, HSV)常需鑑別診斷, 下列何者為非? (A) HSV 則多在非角化黏膜, RAS 多出現在角化黏膜 (B) HSV 有水泡病灶, RAS 則無 (C) HSV 多成群小潰瘍, RAS 潰瘍較大且型態多變 (D) HSV 疼痛感較輕, RAS 疼痛較明顯
答案 (A)	出處： <a href="http://www.tafm.org.tw/Data/011/395/2290101.pdf">http://www.tafm.org.tw/Data/011/395/2290101.pdf</a> [A]: RAS 則多在非角化黏膜,HSV 多出現在角化黏膜