TIẾP CẬN VÀ XỬ TRÍ

LOÉT MIỆNG TÁI DIỄN

ThS. BS. Phùng Ngô Thuý Quỳnh

Phòng Chỉ đạo tuyến Bệnh viện Da liễu TP.HCM

Thành phố Hồ Chí Minh, ngày 24 tháng 05 năm 2024

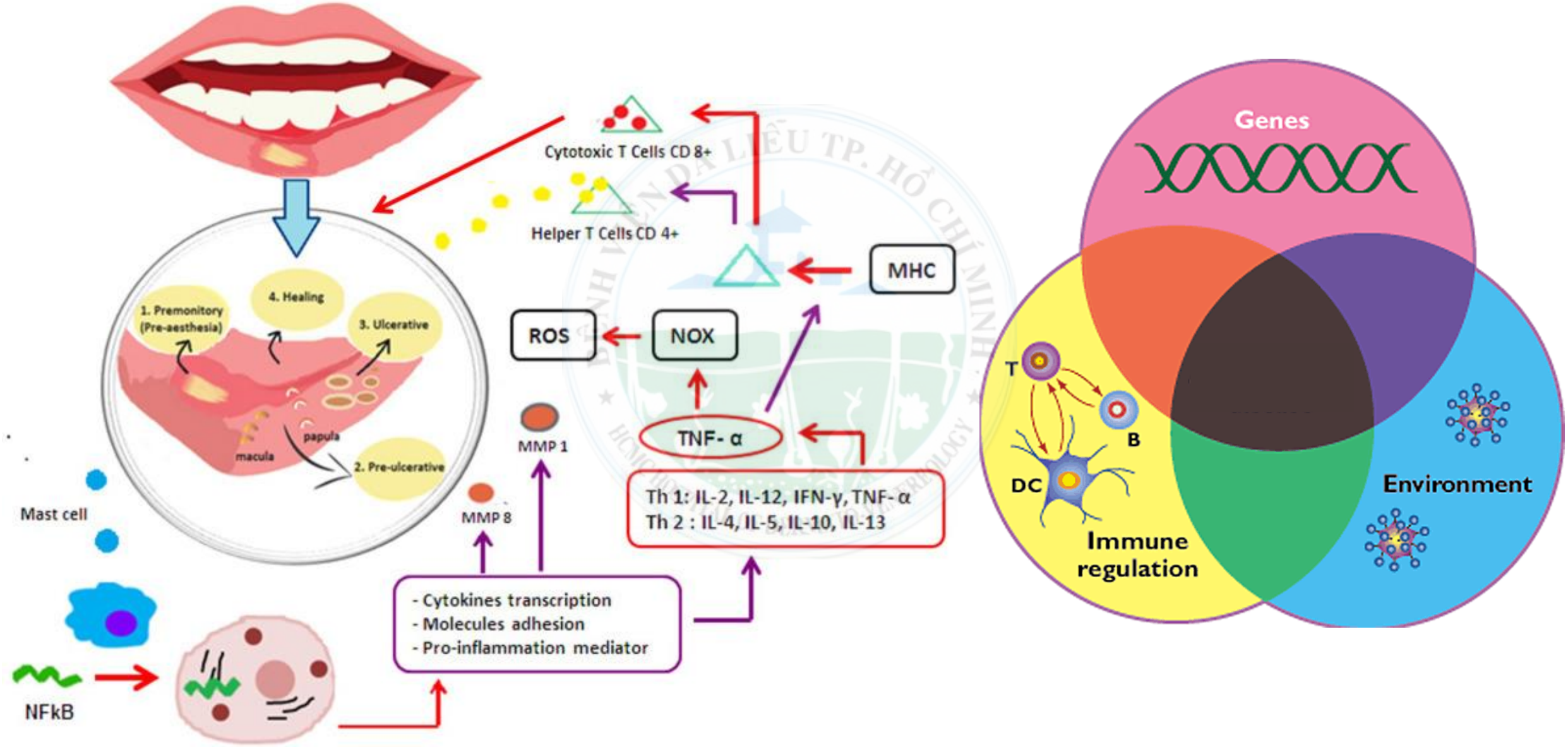
NỘI DUNG

TỔNG QUAN

- Recurrent Aphthous Stomatitis (RAS)
- Thuật ngữ aphthous có nguồn gốc từ tiếng Hy Lạp aphthi, có nghĩa là "đốt cháy" hoặc "gây viêm".
- Đặc trưng của RAS là một hoặc nhiều vết loét đau, thường xuất hiện ở niêm mạc miệng mà không rõ căn nguyên, tái phát nhiều lần (từ 2 đến 4 lần/năm tùy từng nghiên cứu)
- Ảnh hưởng đến 5% đến 66 % dân số nói chung
- Độ tuổi khởi phát RAS từ 10 đến 19 tuổi.
- Nữ mắc nhiều hơn nam.

Sánchez-Bernal, J., Conejero, C., & Conejero, R. (2020). Recurrent Aphthous Stomatitis. Aftosis oral recidivante. *Actas dermo-sifiliograficas*, *111*(6), 471–480. https://doi.org/10.1016/j.ad.2019.09.004

NGUYÊN NHÂN-SINH BỆNH HỌC

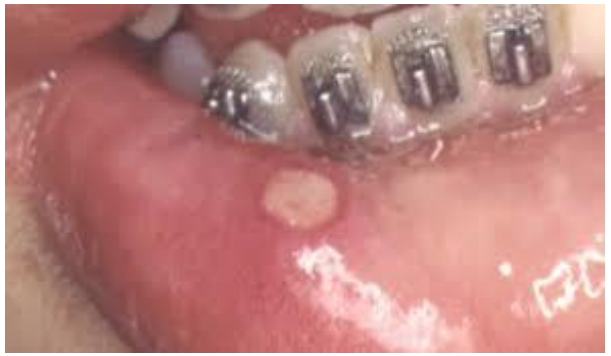


Suharyani, (2021). Evolution of Drug Delivery Systems for Recurrent Aphthous Stomatitis. *Drug design, development and therapy*, *15*, 4071–4089.

YẾU TỐ LIÊN QUAN

Thay đổi nội tiết

Chấn thương tại chỗ



Dị ứng thức ăn

?

Thuốc lá

Thiếu các yếu tố vi lượng

Stress

Journal of
Oral Pathology & Medicine

doi: 10.1111/jop.12241

J Oral Pathol Med

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Significant association of deficiencies of hemoglobin, iron, vitamin B12, and folic acid and high homocysteine level with recurrent aphthous stomatitis

Andy Sun[1,2], Hsin-Ming Chen[1,2,3,4], Shih-Jung Cheng[1,2,3], Yi-Ping Wang[1,2,3], Julia Yu-Fong Chang[1,2,3], Yang-Che Wu[1,2,3], Chun-Pin Chiang[1,2,3,4]

[1]*Department of Dentistry, School of Dentistry, National Taiwan University, Taipei, Taiwan;* [2]*National Taiwan University Hospital, College of Medicine, National Taiwan University, Taipei, Taiwan;* [3]*Graduate Institute of Clinical Dentistry, National Taiwan University, Taipei, Taiwan;* [4]*Graduate Institute of Oral Biology, School of Dentistry, National Taiwan University, Taipei, Taiwan*

Table 1 Mean blood concentrations of hemoglobin (Hb), iron, vitamin B12, folic acid, and homocysteine in 273 patients with recurrent aphthous stomatitis (RAS) and in 273 age- and sex-matched healthy control subjects

	Patients with RAS (n = *273*)		*Healthy control subjects* (n = *273*)		P-*value*
	Mean ± SD	*Range*	*Mean ± SD*	*Range*	*Student's* t-*test*
Hb (g/dl)					
Men (*n* = 91)	14.1 ± 1.4	10.1–16.4	15.1 ± 0.9	13.3–16.6	0.000[a]
Women (*n* = 182)	12.8 ± 1.2	8.8–15.4	13.6 ± 0.7	12.2–15.3	0.000[a]
Iron (μg/dl)					
Men (*n* = 91)	96.8 ± 33.3	41.0–183.0	104.1 ± 27.6	62.0–187.0	0.109
Women (*n* = 182)	83.9 ± 31.5	13.0–170.0	97.9 ± 26.7	60.0–204.0	0.000[a]
Vitamin B12 (pg/ml)	653.7 ± 272.3	150.0–1000.0	656.4 ± 237.3	231.0–1000.0	0.902
Folic acid (ng/ml)	13.5 ± 6.7	2.4–24.0	13.6 ± 5.7	4.6–24.0	0.851
Homocysteine (μM)	8.6 ± 6.5	3.9–77.5	8.6 ± 2.0	4.1–14.0	1.000

[a]Comparisons of the mean blood levels of hemoglobin, iron, vitamin B12, folic acid, and homocysteine between 273 RAS patients and 273 age- and sex-matched healthy control subjects by Student's *t*-test with $P < 0.05$.

Table 2 Number and percentage of individuals with hemoglobin, iron, vitamin B12, or folic acid deficiency or with abnormally high homocysteine level in 273 patients with recurrent aphthous stomatitis (RAS) and in 273 age- and sex-matched healthy control subjects

	Number (%)		P-*value*
Factor	*Patients with RAS* (n = *273*)	*Healthy control subjects* (n = *273*)	*Chi-square test*
Hemoglobin deficiency (Men < 13 g/dl, Women < 12 g/dl)	57 (20.9)	0 (0)	0.000[a]
Iron deficiency (<60 μg/dl)	55 (20.1)	0 (0)	0.000[a]
Vitamin B12 deficiency (<200 pg/ml)	13 (4.8)	0 (0)	0.000[a]
Folic acid deficiency (<4 ng/ml)	7 (2.6)	0 (0)	0.022[a]
High homocysteine levels[b] (>12.6 μM)	21 (7.7)	3 (1.1)	0.000[a]

Có mối liên quan giữa giảm Hb, sắt, vitamin B12, axit folic và tăng nồng độ homocysteine trong máu ở những bệnh nhân RAS.

Liu *et al. BMC Oral Health* (2022) 22:353
https://doi.org/10.1186/s12903-022-02382-0

BMC Oral Health

RESEARCH Open Access

Prevalence of recurrent aphthous stomatitis, oral submucosal fibrosis and oral leukoplakia in doctor/nurse and police officer population

Yundong Liu[1*†], Mi He[2†], Tao Yin[3], Ziran Zheng[2], Changyun Fang[2*] and Shifang Peng[4*]

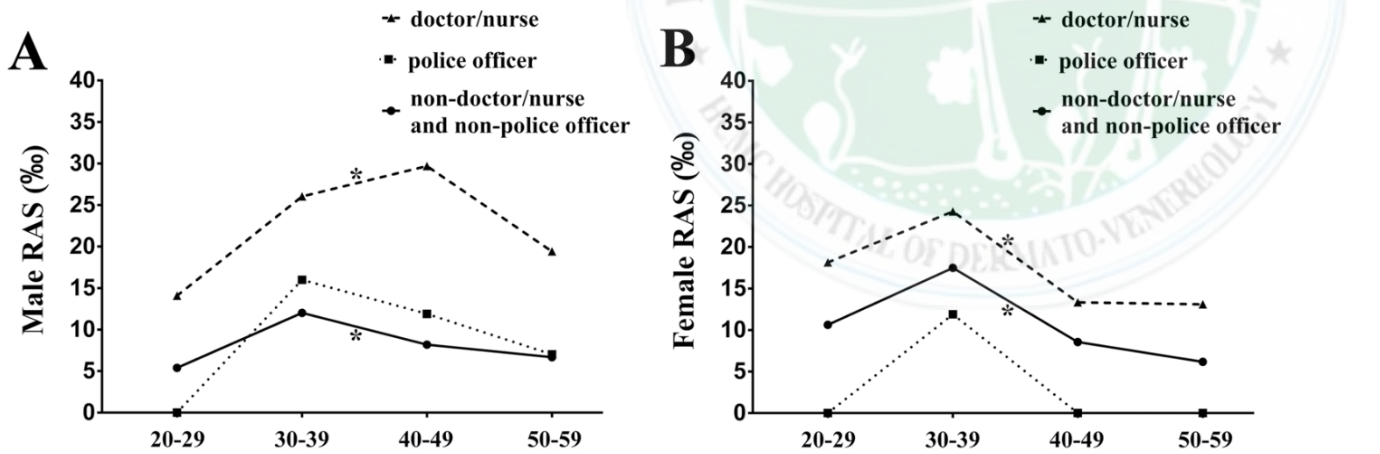
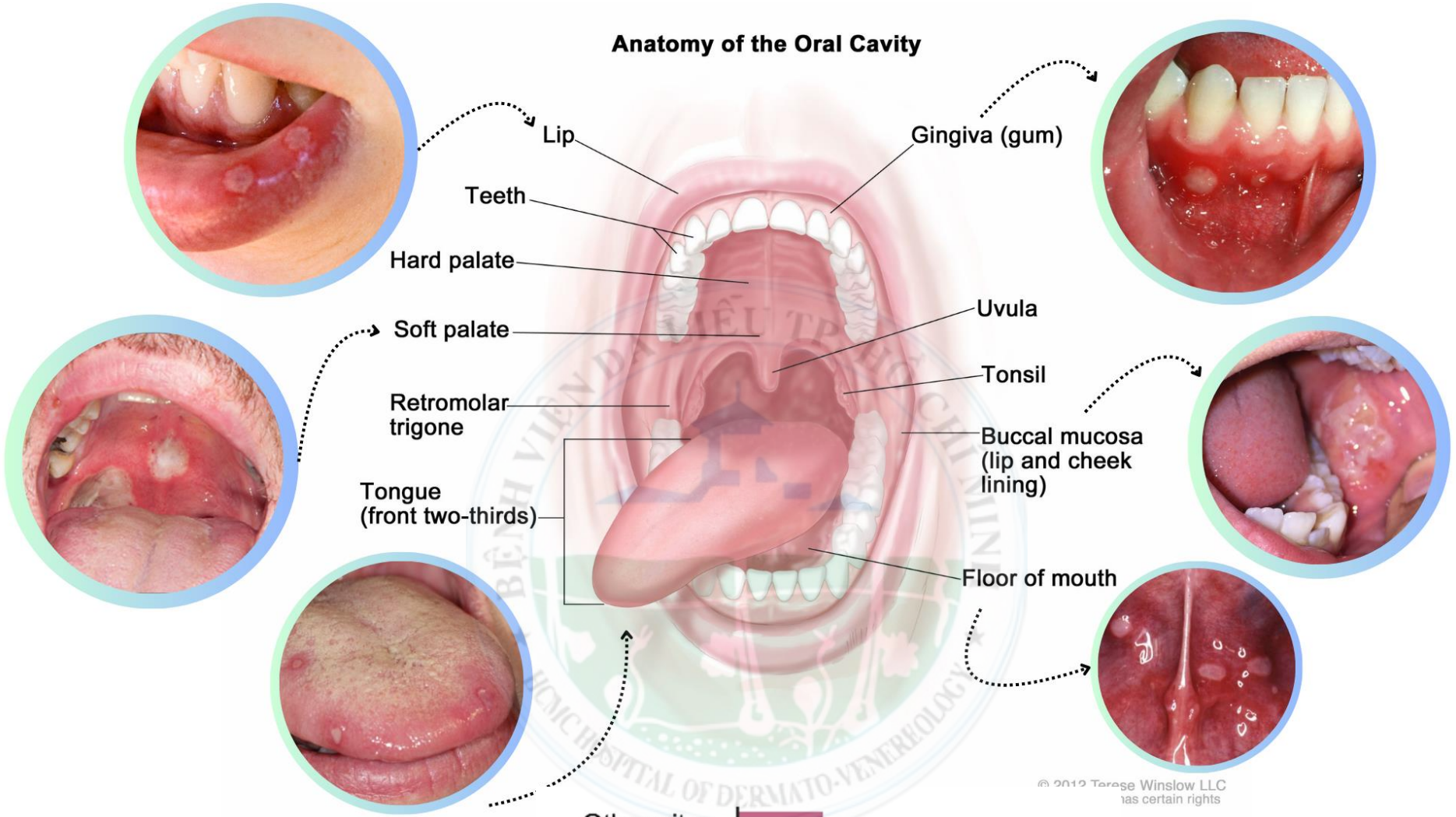


Fig. 1 The prevalence rates of RAS in the non-doctor/nurse and non-police officer group, the police officer group and the doctor/nurse group.* indicates statistically significant differences of overall prevalence with $P < 0.05$ between the doctor/nurse group and the non-doctor/nurse and non-police officer goup

So với nhóm không phải bác sĩ/điều dưỡng và không phải cảnh sát, tỷ lệ mắc RAS ở nhóm bác sĩ/điều dưỡng nam (24,27‰) và nữ (20,50‰) cao hơn có ý nghĩa thống kê

Liu, Y., He, M., Yin, T. et al. Prevalence of recurrent aphthous stomatitis, oral submucosal fibrosis and oral leukoplakia in doctor/nurse and police officer population. BMC Oral Health 22, 353 (2022). https://doi.org/10.1186/s12903-022-02382-0



Hernández-Olivos, *et al.* Salivary proteome of aphthous stomatitis reveals the participation of vitamin metabolism, nutrients, and bacteria. *Sci Rep* **11**, 15646 (2021).

LÂM SÀNG

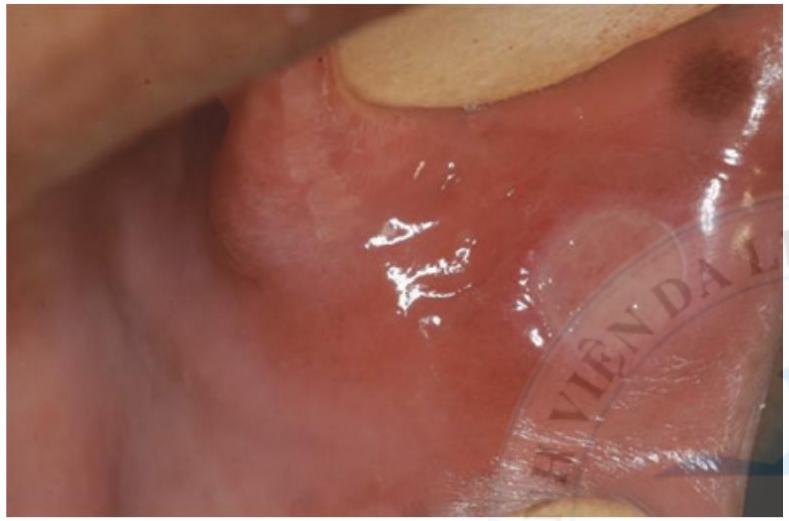


Fig. 1 Minor RAS. Ulceration is surrounded by an erythematous halo in the jugal mucosa, near the labial commissure

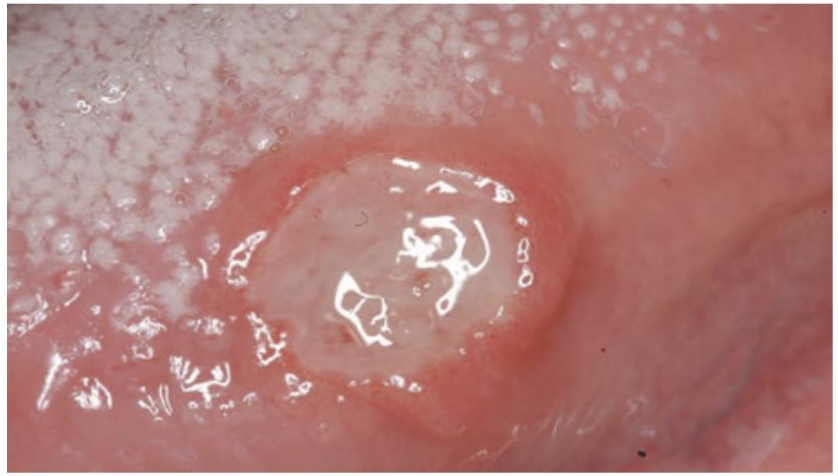


Fig. 3 Major RAS. Deep ulceration on the lateral border of the tongue

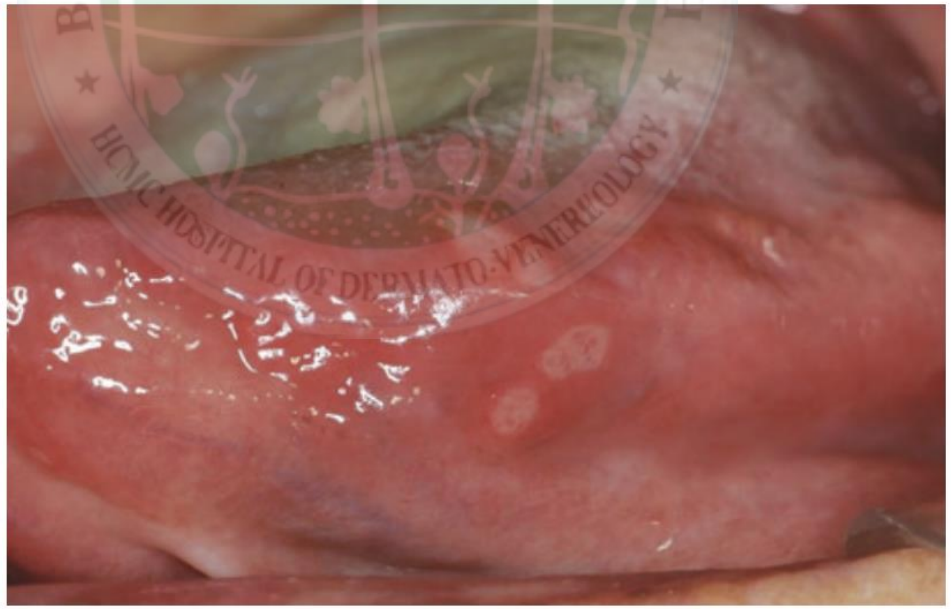


Fig. 4 Herpetiform ulceration. Numerous ulcerations on the lateral border of the tongue, of which some coalesce to form larger lesions

S. Staines, K. Clinical decision-making in oral medicine: a concise guide to diagnosis and treatment. *Br Dent J* 236, 248 (2024). https://doi.org/10.1038/s41415-024-7122-4

LÂM SÀNG

TABLE 1 Summary of clinical features of RAS[1,3–5]

	Minor RAS	Major RAS	Herpetiform RAS
Percentage of RAS cases	70%–85%	10%–15%	1%–10%
Gender predilection	Equal	Equal	Female
Peak age of onset decade)	Second	First and second	Third
Morphology	Gray pseudomembrane surrounded by an erythematous halo	Gray pseudomembrane surrounded by an erythematous halo	Small, deep, irregularly shaped ulcerations that typically combine
Site	Non-keratinized mucosa (lips, cheeks, tongue, floor of mouth)	Keratinized and non-keratinized mucosa (lips, pharynx, soft palate)	Non-keratinized mucosa (lips, cheeks, tongue, floor of mouth, gingiva)
Number of ulcers	1–5	1–3	10–100
Size of ulcers	<10 mm	>10 mm	1–2 mm
Duration	7–14 days	2 weeks to 3 months	7–14 days
Scarring	Uncommon	Common	Uncommon

Abbreviation: RAS, recurrent aphthous stomatitis.

Lau, C. B., & Smith, G. P. (2022). Recurrent aphthous stomatitis: A comprehensive review and recommendations on therapeutic options. *Dermatologic therapy*, *35*(6), e15500. https://doi.org/10.1111/dth.15500

CHẨN ĐOÁN PHÂN BIỆT

Behcet's disease

Crohn's disease

PFAPA

Disease	Types of oral lesion and location	Clinical features
Recurrent aphthous stomatitis (RAS)	Single or multiple ulcers; oral mucosa	Three different clinical types of aphthae: minor, major, herpetifom
Behçet's disease	Aphthous-like; oral and pharyngeal mucosa	Concomitant uveitis, genital and skin lesions
Nutritional deficiencies	Aphthous-like; oral mucosa	Concomitant iron, folic acid, and vitamin B12 deficiencies
Intestinal bowel disease (Crohn's disease and Ulcerative colitis)	Aphthous-like; oral mucosa	Concomitant intestinal involvement which often precedes the oral lesions
Periodic fever syndromes (PFAPA)	Aphthous-like; oral mucosa	Concomitant periodic fevers, pharyngitis, cervical adenitis
Mouth and genital ulcers with inflamed cartilage (MAGIC)	Aphthous-like; oral and pharyngeal mucosa	Concomitant genital ulcerations and cartilage inflammation
HIV-related oral ulcers	Aphthous-like; oral mucosa	Major aphthous ulcers and concomitant decrease in the absolute number of CD4+ cells
Xerostomia	Aphthous-like; oral mucosa	Concomitant sore throat, altered taste, burning sensation, mucositis, impaired chewing and swallowing

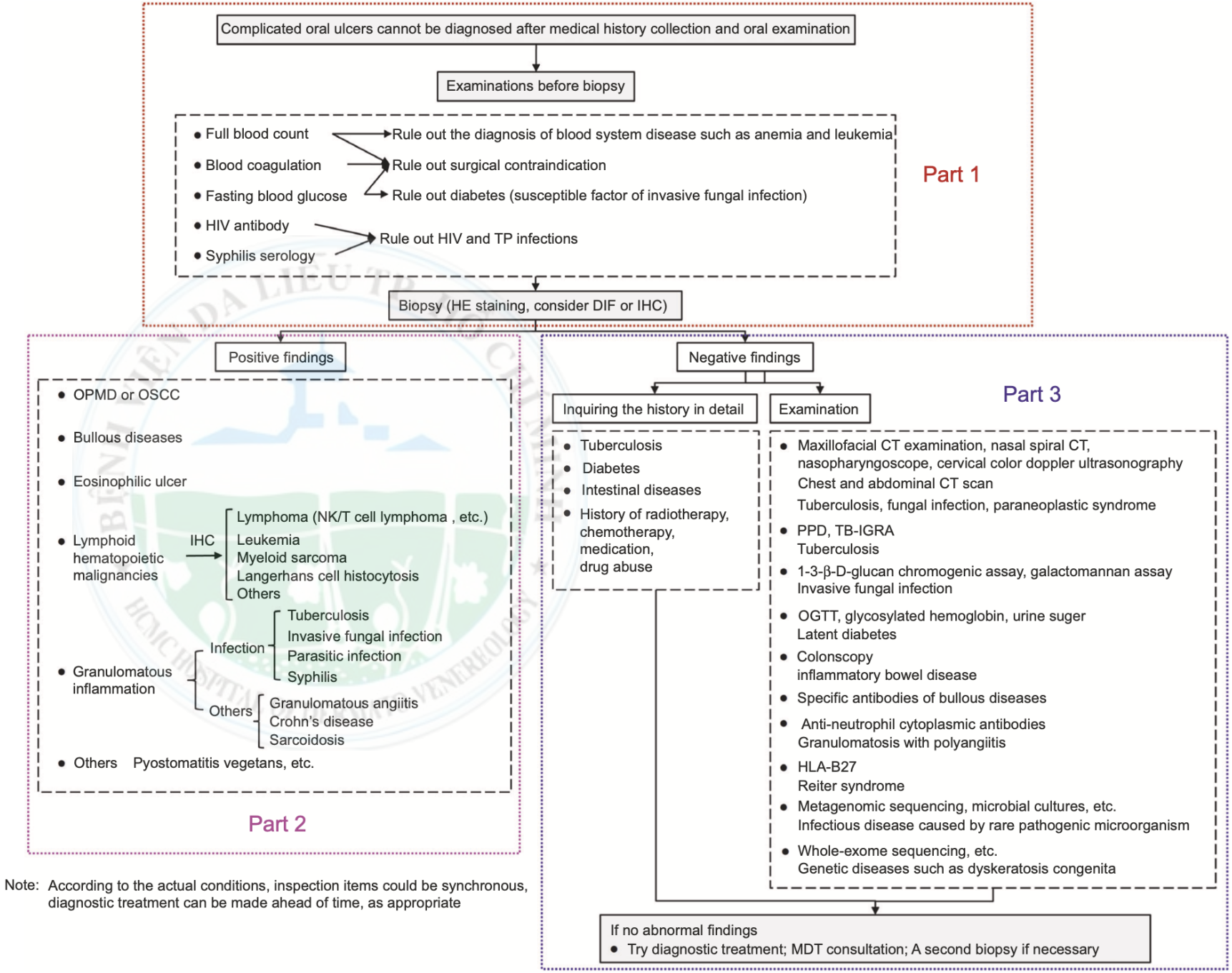
HIV

↓ B12, Folic, Fe

European Journal of Paediatric Dentistry vol. 23/1-2022

CẬN LÂM SÀNG ?

- ❑ CHẨN ĐOÁN PHÂN BIỆT
- ❑ CHẨN ĐOÁN NGUYÊN NHÂN



Note: According to the actual conditions, inspection items could be synchronous, diagnostic treatment can be made ahead of time, as appropriate

Zeng, X…(2022). Difficult and complicated oral ulceration: an expert consensus guideline for diagnosis. International journal of oral science, 14(1), 28. https://doi.org/10.1038/s41368-022-00178-0

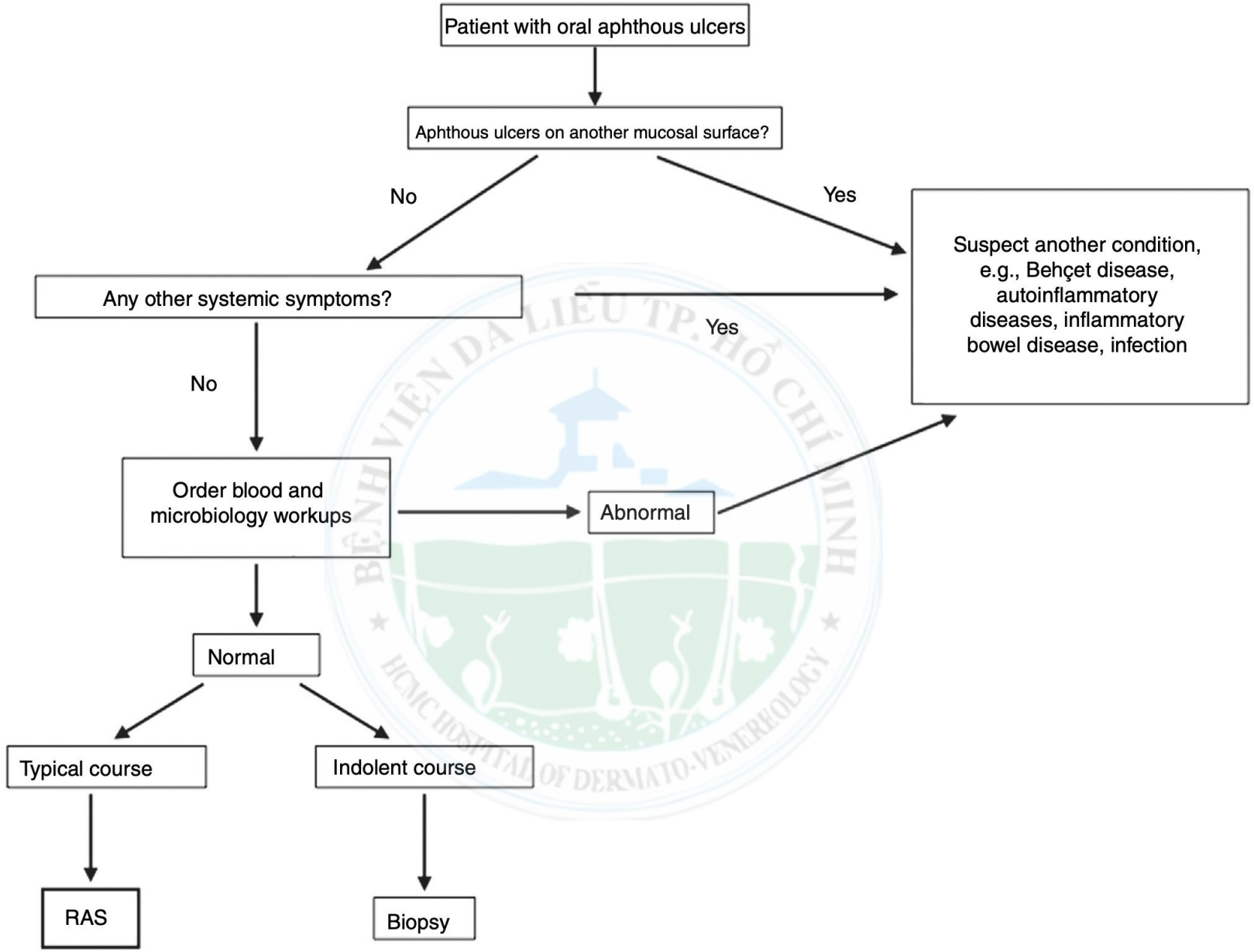
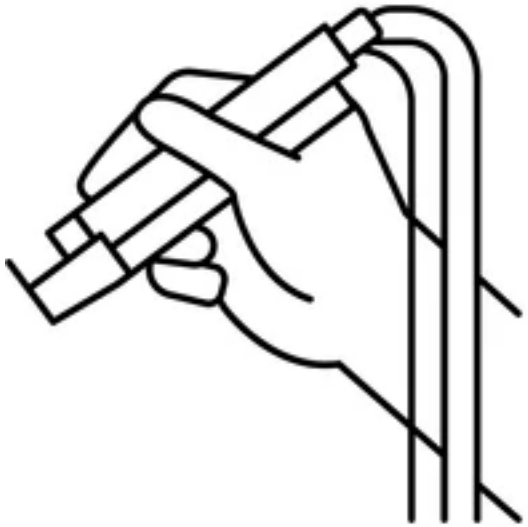


Figure 5 Diagnostic algorithm for the management of patients with aphthous ulcers. RAS indicates recurrent oral stomatitis.

Sánchez-Bernal, J., Conejero, C., & Conejero, R. (2020). Recurrent Aphthous Stomatitis. Aftosis oral recidivante. *Actas dermo-sifiliograficas*, *111*(6), 471–480. https://doi.org/10.1016/j.ad.2019.09.004

ĐIỀU TRỊ



ĐIỀU TRỊ TẠI CHỖ

1

Gel Corticosteroid 2-3 lần/ ngày

2

- ❑ Tetracycline bôi
- ❑ Sucrafat huyền phù súc miệng 4 lần/ ngày
- ❑ Hyaluronic axit dạng gel 0,2% / nước súc miệng
- ❑ Amlexanox dạng bột nhão bôi 4 lần/ ngày

#

Laser HeNe tại chỗ loét

Hướng dẫn Chẩn đoán và điều trị các bệnh Da liễu năm 2023- Bộ Y tế

ĐIỀU TRỊ TẠI CHỖ

TABLE 4 Summary of primary topical and systemic treatment options for RAS

Therapeutic agent	Primary considerations	Highest level of supporting evidence for therapeutic agent and dosage recommendation
Topical medications: First options for RAS treatment; can be used as an ointment or paste for solitary, localized ulcers; can be in the form of a mouthwash rinse for widespread, numerous lesions		
Corticosteroids	Primary corticosteroids in order of increasing potency: triamcinolone acetonide, fluocinolone acetonide, clobetasol propionate	
Triamcinolone acetonide (0.1% in orabase 3-4x/day)		Randomized controlled trial
Fluocinolone acetonide (0.025–0.05% gel 3-4x/day)		Randomized controlled trial
Clobetasol propionate (0.025%–0.05% gel or ointment 2-3x/day)		Randomized controlled trial
Dexamethasone (elixir 0.5 mg/5 cc or ointment 3x/day)		Randomized controlled trial
Non-steroidal anti-inflammatory/analgesic/antiseptics	NSAIDs may induce aphthous-like oral ulcers, so these drugs should be used with caution. Amlexanox is the only FDA approved treatment for RAS Triclosan products were banned by the FDA in 2016. They should not be used until further evidence confirms their safety. Topical 3% diclofenac can be given in combination with 2.5% hyaluronic acid	
Amlexanox (5% ointment 3-4x/day)		Randomized controlled trial
Benzydamine hydrochloride (0.15% mouthwash)		Small prospective pilot study
Chlorhexidine gluconate (0.2% mouthwash 3x/day)		Randomized controlled trial
Triclosan (gel/rinse 3x/day)		Randomized controlled trial
Diclofenac (3%)		Randomized controlled trial
Antibiotics	Doxycycline—well-tolerated and safe, little adverse effects; significant decreases in healing time when compared to control, but insignificant impact on pain reduction Minocycline—well-tolerated and safe, little adverse effects; higher concentration (0.5% vs. 0.2%) is optimal for pain management.	
Minocycline (0.5% solution 4x/day)		Randomized controlled trial
Doxycycline (100 mg in 10 ml of water 4x/day)		Randomized controlled trial
Anesthetics	Anesthetics are solely used to treat pain associated with RAS, so they should be taken in combination with other therapies	
Lidocaine (1% cream or 2% spray/gel)		Randomized controlled trial
Benzocaine (20% gel)		Randomized controlled trial
Hyaluronic Acid (0.2% topical gel 2x/day)	Safe treatment and effective at reducing the number and size of ulcers.	Small prospective pilot study

Lau, C. B., & Smith, G. P. (2022). Recurrent aphthous stomatitis: A comprehensive review and recommendations on therapeutic options. *Dermatologic therapy*, *35*(6), e15500. https://doi.org/10.1111/dth.15500

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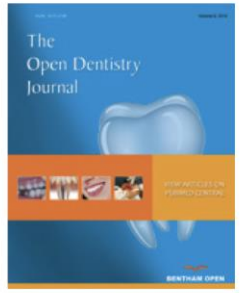
DOI: 10.2174/1745017901814010700, 2018, *12*, 700-713

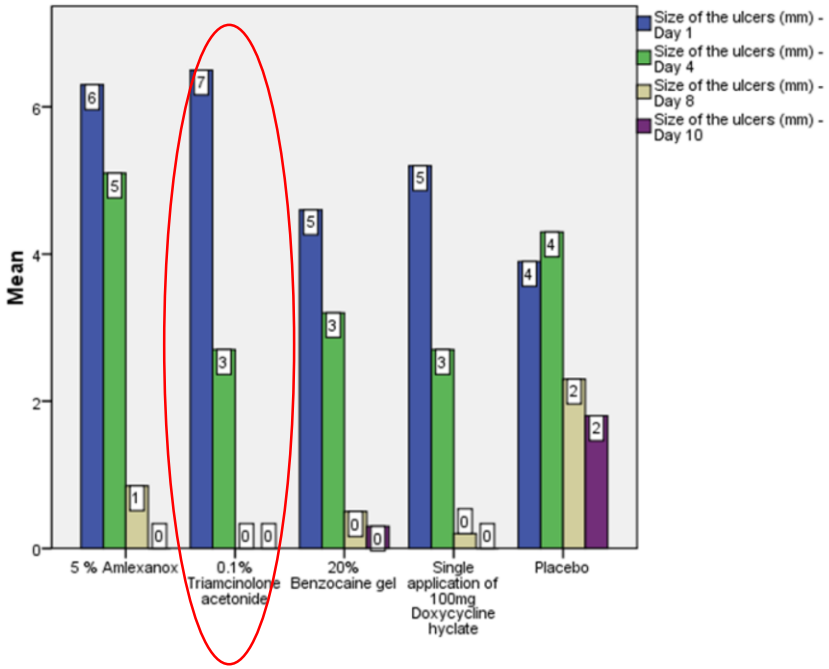


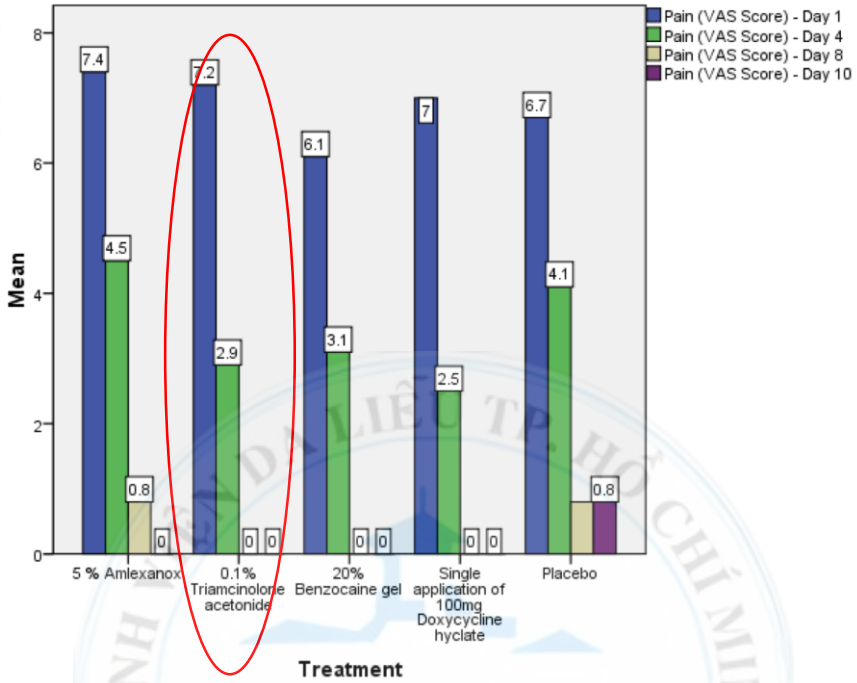
RESEARCH ARTICLE

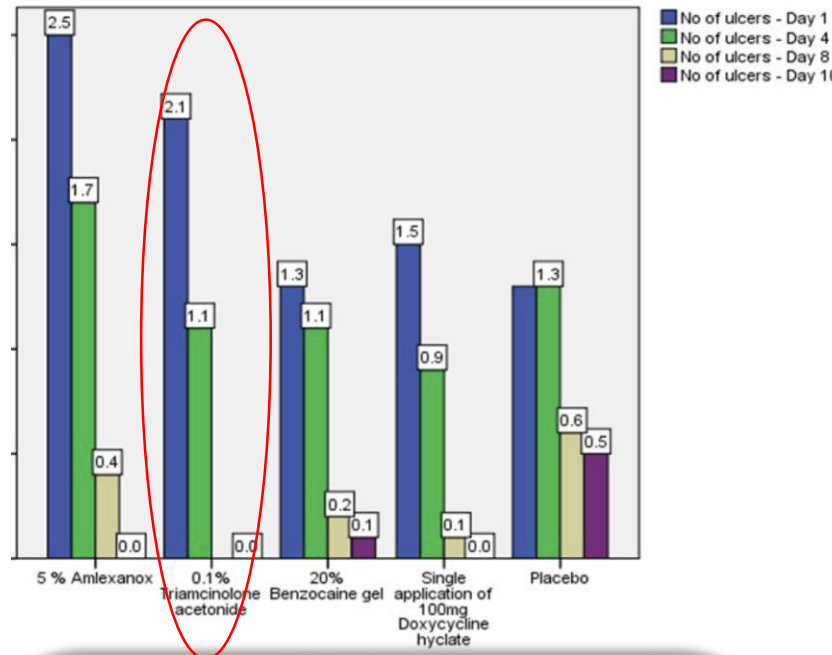
A Randomized, Double-Blind, Placebo-Controlled Trial on Clinical Efficacy of Topical Agents in Reducing Pain and Frequency of Recurrent Aphthous Ulcers

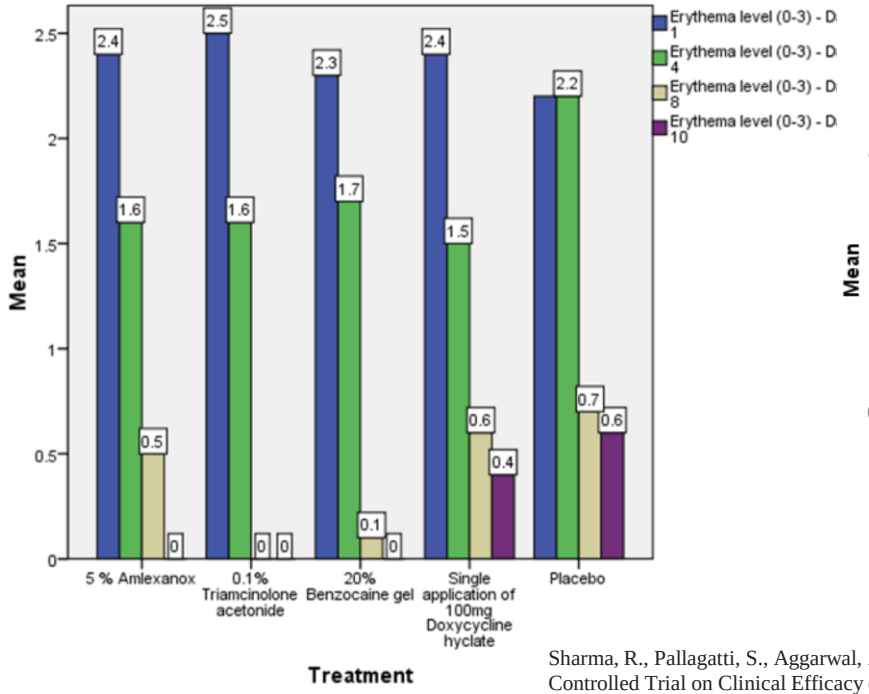
Renu Sharma[1], Shambulingappa Pallagatti[2], Amit Aggarwal[2,*], Soheyl Sheikh[2], Ravinder Singh[2] and Deepak Gupta[2]

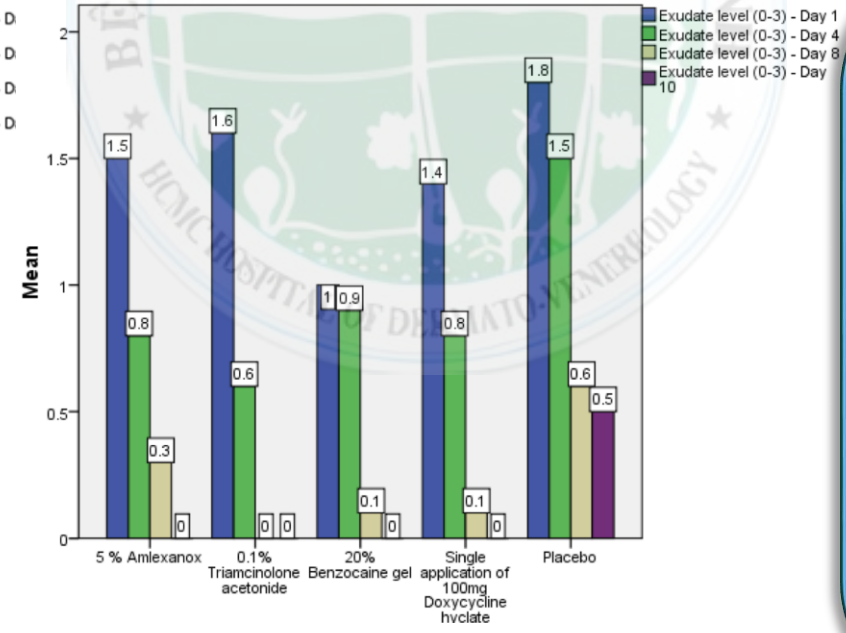
- Nghiên cứu trên 50 mẫu
- Phương pháp điều trị tại chỗ bao gồm: Amlexanox 5%, Triamcinolone Acetonide 0,1%, Benzocain 20% gel, 100 mg Doxycycline hyclatemix với keo dán răng giả và nước muối thông thường (20:2:1); giả dược
- Đánh giá kích thước, số lượng vết loét, đau, ban đỏ và mức độ tiết dịch vào các ngày thứ 1, 4, 8 và 10.











- Triamcinolone Acetonide 0,1% và doxycycline hyclate 100mg hiệu quả hơn trong việc giảm kích thước vết loét và cơn đau vào Ngày 4
- Triamcinolone Acetonide 0,1% và Amlexanox 5% hiệu quả hơn trong việc giảm kích thước, số lượng, mức độ đau, ban đỏ và dịch tiết ở ngày thứ 8 (p = 0,000*) và ở ngày thứ 10 (p = 0,000*) so với sử dụng một lần 100 mg Doxycycline Hyclate, gel Benzocain 20% và giả dược
- Giảm triệu chứng Đau ngày thứ 10 ở những BN được điều trị bằng Doxycycline Hyclate 100mg thoa 1 lần và gel Benzocain 20% (p = 0,001)

Sharma, R., Pallagatti, S., Aggarwal, A., Sheikh, S., Singh, R., & Gupta, D. (2018). A Randomized, Double-Blind, Placebo-Controlled Trial on Clinical Efficacy of Topical Agents in Reducing Pain and Frequency of Recurrent Aphthous Ulcers. *The open dentistry journal*, *12*, 700–713. https://doi.org/10.2174/1745017901814010700

ĐIỀU TRỊ TOÀN THÂN

1

Prednisone liều 20-40 mg/ngày 4-7 ngày

2

- ❑ Colchicin: 0,6 mg/ ngày trong 1tuần => 0,6 mg x2 lần/ ngày ≥ 1 tháng
- ❑ Dapson: 25-50 mg/ngày, tối đa 150 mg/ ngày ≥ 1 tháng

#

- ❑ Thalidomid: 50-100mg/ngày, duy trì 25 mg/ngày
- ❑ Montelukast: 10mg/ngày trong 1 tháng-> 10mg cách ngày
- ❑ Apremilast: 30 mg 2 lần/ngày trong 2-6 tuần
- ❑ Pentoxifylin: 400 mg 3 lần/ngày

Hướng dẫn Chẩn đoán và điều trị các bệnh Da liễu năm 2023- Bộ Y tế

ĐIỀU TRỊ TOÀN THÂN

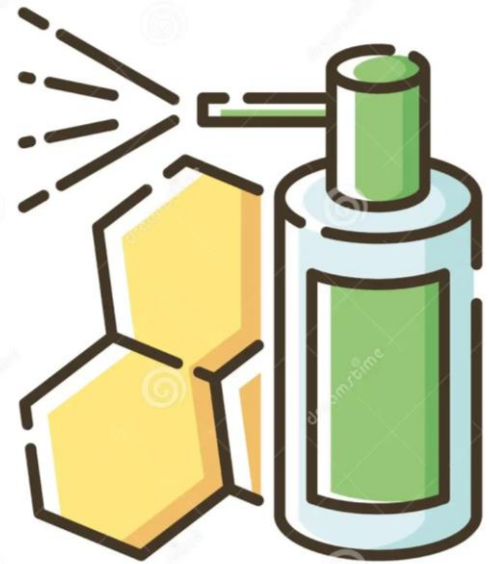
Corticosteroids Prednisone (stepwise dose reduction: 25 mg for 15 days, 12.5 mg for 15 days, 6.25 for 15 days, 6.25 mg on alternate days)	Prednisone—long-term usage is associated with various adverse effects >5 mg daily—weight gain and epistaxis >7.5 mg daily glaucoma, depression, hypertension >10 mg daily—cataracts >20 mg daily—osteonecrosis, psychosis If using >2.5 mg daily for 3 months, patients should optimize calcium and vitamin D intake, refrain from smoking, and limit alcoholic beverages. (26)	Randomized controlled trial
Immunomodulators Thalidomide (100 mg/days for 10 days, then 50 mg/d for 10 days, then 25 mg/days for 10 days) Levamisole (50 mg 3x/day, 150 mg total, for three consecutive days per week) Colchicine (stepwise progression of 0.5 mg/day up to 1.8 mg/day) Dapsone (stepwise progression of 25 mg/day up to 125–150 mg/day) Pentoxifylline (400 mg 3x/day)	Thalidomide—associated with severe adverse effects includes teratogenicity and neuropathy; Levamisole—associated with headache, nausea, dysgeusia, and hypersomnia Colchicine—usage at the recommended dosage of 0.5 mg 3 times daily for 6 months is associated with gastrointestinal drug intolerance; associated with a high frequency of adverse effects Dapsone—combination of colchicine and dapsone is more effective than each agent alone; lower doses of each also reduces side effects Pentoxifylline—not as effective in treating RAS as other immunomodulating drugs	Randomized controlled trial Randomized controlled trial Randomized controlled trial Retrospective review Randomized controlled trial
Antibiotics Clofazimine (100 mg/day for 30 days, 100 mg every other day) Potassium Penicillin G (50 mg 4x/day)	Clofazimine—skin pigmentation may occur and is dose-dependent; diminishes after drug usage is stopped Potassium Penicillin G - minimal safety concerns	Randomized controlled study (partially blind) Randomized controlled study

- **KHÔNG ĐÁP ỨNG ĐIỀU TRỊ TẠI CHỖ**
- **NGỪA TÁI PHÁT**

Lau, C. B., & Smith, G. P. (2022). Recurrent aphthous stomatitis: A comprehensive review and recommendations on therapeutic options. *Dermatologic therapy*, *35*(6), e15500. https://doi.org/10.1111/dth.15500


Propolis
Propolis


HONEY



dentistry journal MDPI

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Efficacy and Safety of Propolis for Treating Recurrent Aphthous Stomatitis (RAS): A Systematic Review and Meta-Analysis

Tina Roberts,[1,*] Idriss Ibrahim Kallon,[2] and Anel Schoonees[2]

Patrick R. Schmidlin, Academic Editor

Abstract

Go to:

The systematic review assessed the efficacy and safety of propolis for treating recurrent aphthous stomatitis (RAS). The review adopted the PICO framework to examine the effects of topical and systemic propolis on RAS while also comparing it to established treatments, placebos, or no treatment. The main focus was on the healing time, pain levels, adverse effects, the likelihood of ulcer recurrence, and accompanying symptoms such as redness. The team included randomised controlled trials (RCTs) and quasi-randomised trials, excluding case reports and studies on oral ulcers other than RAS. In May 2022, the review team comprehensively searched nine databases and trial registries following the PRISMA guidelines. The protocol was registered in the PROSPERO database under the registration number CRD42022327123. Two review authors conducted a comprehensive and autonomous search for pertinent papers and extracted essential data. Where data permitted, the team utilised Review Manager 5 to conduct a random-effects meta-analysis, assessing the risk of bias and heterogeneity of the included studies. Where possible, the GRADE Pro programme was used to assess the certainty of the evidence for all the outcomes. This review included 10 RCTs, comprising 825 participants aged between 18 and 69 years. Seven studies evaluated the efficacy and safety of propolis when applied topically, all of which used different formulations, concentrations, and carriers. The remaining three studies assessed systemic administration in tablet form. The duration of investigations ranged from 5 days to 3 years. The review team classified two studies as having an overall 'high risk' of bias, while the remaining studies were categorised as having an overall 'uncertain risk'. The overall certainty of the evidence was 'very low'. The results indicate that topical and systemic propolis may decrease the duration of healing, alleviate pain, and reduce redness in patients with RAS compared to a placebo. However, the certainty of the evidence is very low. These may be due to the high risk of bias, substantial heterogeneity, and limited sample sizes in the included studies. For these reasons, the results of this review should be interpreted with caution. Nevertheless, the limited number of adverse effects observed suggests that propolis may have a favourable safety profile when used for a short period in treating RAS.

10 nghiên cứu RCT
825 người tham gia
7 NC sử dụng keo ong bôi tại chỗ.
3 NC sử dụng keo ong đường toàn thân ở dạng viên nén.

Keo ong tại chỗ và toàn thân có thể làm **giảm thời gian lành vết thương, giảm đau và giảm đỏ**.

Roberts, T., Kallon, I. I., & Schoonees, A. (2024). Efficacy and Safety of Propolis for Treating Recurrent Aphthous Stomatitis (RAS): A Systematic Review and Meta-Analysis. *Dentistry journal*, *12*(1), 13. https://doi.org/10.3390/dj12010013

Author(s) Year (Country)	N	Age (years)	Intervention	Comparator	Type	Study Duration	Dosage and Frequency of Application	Outcome Measures	Time-Points	Unit of Analysis	Overall ROB *
Alemrajabi, et al., 2022 [36] (Iran)	N = 40	18–56 (range)	Pesica	Propolis (30%)	Mouthwash	10 days	15 drops in water thrice daily	Pain intensity, changes in ulcer size	Days 2, 6	Mean	* Unclear
Ali & Rasool, 2011 [31] (Sudan)	N = 120	39.5 (mean)	Propolis in olive oil	Similar formulation without propolis	Paste	8 months	twice daily	Duration of complete ulcer healing, duration of pain disappearance, onset of size reduction	Daily	Percent	* Unclear
Al-Sultan, 2003 [30] (Iraq)	N = 40	29.2 ± 5 (mean)	Propolis (1%)	Distilled water	Mouthwash	5 days	5 mL; thrice daily	Frequency of attacks, Grade of pain, reduction in lesion size = healing	Days 2, 5	Percent	* Unclear
El-Haddad, et al., 2014 [33] (Saudi Arabia)	N = 94	20 to 29. (range)	Commercial honey	Adhesive paste (Orobase (R))	Paste	8 days	thrice daily	Ulcer size, pain relief, erythema levels	Daily	Mean	* Unclear
Rodriguez-Archilla and Raissoni, 2017 [35] (Morocco)	N = 125	33 ± 12 (mean)	propolis (18%)	Flavoured distilled water	Aerosol	3 years	Spray thrice daily	Disappearance of lesion, the disappearance of pain, Adverse effects	Until the resolution of symptoms	Mean	* Unclear
Stojanovska, et al., 2014 [32] (Greece)	N = 20	20–30 (range)	Proaftol (propolis + essential oils)	Calcium-based supplement	Aerosol	8 days	Spray: 3 to 4 daily	Lesion size, intensity of pain	Days 3, 5, 8	Mean	* Unclear
Tonkaboni, et al., 2016 [34] (Iran)	N = 45	28.18 ± 7 (mean) 18 to 53 (range)	Propolis (3%)	Placebo	Mouthwash	3 months	thrice daily	Pain and burning, size of lesion, frequency of recurrence, healing time	Not explicitly stated	Lesions (%) *p*-Values Z-Values	* Unclear

* ROB = risk of bias.

Systemic Propolis										
Author(s) Year Country	**Number of Participants**	**Age (years)**	**Intervention**	**Comparator**	**Type**	**Study Duration**	**Dosage and Frequency of Application**	**Outcome Measures**	**Time-Points**	**Unit of Analysis**
Delavarian et al., 2015 [38] (Iran)	N = 22	28.36 ± 5.75 (mean)	Propolis, sucrose, lactose, and binder in a ratio of 1:6	The same ingredients except for propolis	Tablet	6 months	500 mg once daily	Time of healing Monthly frequency of RAS Size of ulcers Pain level	Every two weeks	Relapses: mean Remainder: means: *p*-Values and Z-Values
Liu and Zhang, 2015 [39] (China)	N = 180	32 (mean) 20 to 45 (range)	Pujia and Propolis	Vitamins	Tablet	10 days	Intervention: twice daily	>50% ulcer healing within 7 days	Days: 3, 7, 10	Percentage
Samet, 2007 [37] (USA)	N = 19	None stated	Propolis	Calcium-based food supplement	Tablet	13 months	500 mg once daily	Frequency of outbreaks Number and severity of outbreaks	Every two weeks	Proportion

TABLE 3 Summary of natural therapies for RAS

Natural remedy	Quality of study	Effect
Quercetin gel[27]	Randomized, prospective, parallel-group, active-controlled clinical study of 40 patients	Decrease in pain and ulcer area using 2% quercetin gel and benzydamine hydrochloride mouthwash, with no significant difference; statistically significant faster ulcer size decreases
Pumpkin seed oil[28]	Single-blind, clinical, therapeutic trial of 25 patients	Significantly lower oral clinical manifestation index scores (OCMI) compared to control
Chamomilla tincture[29]	Randomized, triple-blind, matched-groups, placebo-controlled trial of 36 patients	Reduction in number of ulcers and pain
Chitosan[30,31]	Randomized, parallel-controlled, double-blind clinical trial of 72 patients Randomized, double-blind crossover clinical trial of 20 patients	Effective in reducing ulcer size, mean healing time, and pain
Curcumin[32]	Randomized, double-blind clinical trial of 58 patients	Improvement pain severity, lesion size, and efficacy index comparable to 0.1% triamcinolone acetonide
Lactic acid 5% mouthwash[33]	Nonrandomized control study (quasi-experimental) of 40 patients	Lower oral clinical manifestations indexes (OCMI) as evidenced by reductions in size, pain, and healing time of RAU
Diphenhydramine containing glycyrrhiza glabra (DSG)[34]	Randomized, double-blind clinical trial of 70 patients	Reduction in pain and healing time
Myrtle, a perennial shrub from northern Iran. Extracts are reported to possess antihyperglycemic, antibacterial, and analgesic properties[35]	Randomized, double-blind, controlled before-after clinical trial of 45 patients	Statistically significant reduction in ulcer size, pain severity, and level of erythema and exudation

Lasers in Medical Science
https://doi.org/10.1007/s10103-020-03166-0

ORIGINAL ARTICLE

Effect of different treatments on recurrent aphthous stomatitis: laser versus medication

Xiao Huo[1] · Ning Han[1] · Li Liu[1]

Received: 29 February 2020 / Accepted: 21 October 2020

Laser Diode 810 nm, spotsize 7 mm, 12,9 J/cm2
1 lần/ ngày trong 3 ngày liên tục

Triamcinolone acetonide 0,1% thoa tại chỗ
3 lần /ngày

Table 2 Comparison of the VAS scores and healing time

	Laser	Medication	*P*
Spontaneous pain (VAS)			
Before treatment	5.12 ± 0.63	5.69 ± 0.46	0.379
After treatment			
1 day	2.04 ± 0.44	4.85 ± 0.40	0.000
3 days	0.60 ± 0.25	3.00 ± 0.44	0.000
7 days	0	0.31 ± 0.17	0.083
Functional pain (VAS)			
Before treatment	7.60 ± 0.30	6.96 ± 0.34	0.292
After treatment			
Immediately after treatment (laser)	3.40 ± 0.49		
1 day	4.60 ± 0.44	5.96 ± 0.35	0.169
3 days	1.36 ± 0.33	4.00 ± 0.46	0.000
7 days	0.20 ± 0.14	1.19 ± 0.38	0.040
Healing time (days)	6.60 ± 0.29	7.77 ± 0.52	0.036

KẾT LUẬN

- ❑ Laser Diode có bước sóng 810 nm với các thông số được chọn trong nghiên cứu có tác dụng giảm đau tốt hơn so với triamcinolone acetonide 0,1% trên BN RAS.
- ❑ Laser không có hiệu quả rõ ràng trên thời gian lành thương.

Huo, X., Han, N., & Liu, L. (2021). Effect of different treatments on recurrent aphthous stomatitis: laser versus medication. *Lasers in medical science*, *36*(5), 1095–1100. https://doi.org/10.1007/s10103-020-03166-0

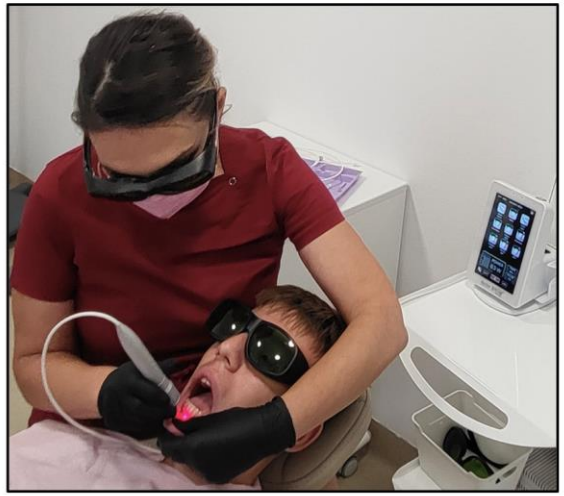
Journal of *Clinical Medicine*

MDPI

Article

A Novel Therapeutic Approach of 980 nm Photobiomodulation Delivered with Flattop Beam Profile in Management of Recurrent Aphthous Stomatitis in Paediatrics and Adolescents—A Case Series with 3-Month Follow-Up

Reem Hanna [1,2,3,*], Ioana Cristina Miron [1] and Stefano Benedicenti [1]



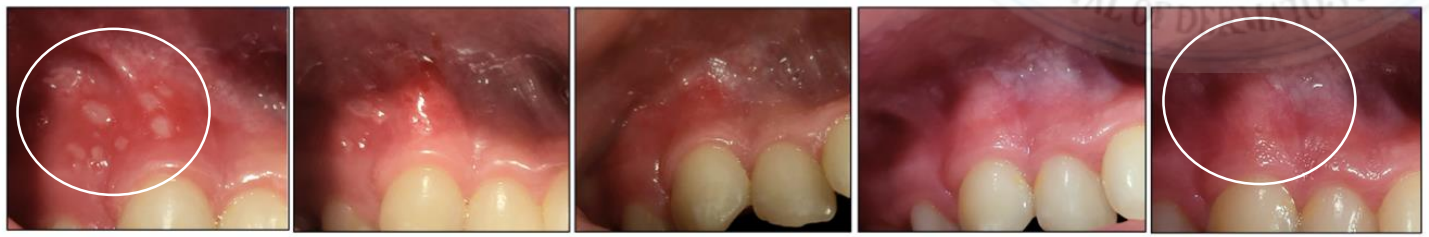


Table 1. Photobiomodulation (PBM) laser device specifications, PBM parameters and treatment protocol.

Device specifications	Manufacturer	Doctor Smile, Lambda, Italy
	Model identifier	Wiser 2
	Emitters type	Diode laser
	Medical/laser class	IV
	Beam delivery system	Fibre
	Probe design	Single
	Beam profile	Flattop
	Beam divergence	0°
Irradiation parameters	Wavelength (nm)	980
	Therapeutic power output (W)	0.3
	Emission mode	CW
	Beam spot size at target (cm^2)	1
	Irradiance at target (W/cm^2)	0.3
	Energy per spot (J)	18
	Fluence (J/cm^2) per point	18
	Irradiation time (s) per point	60
Treatment protocol	Number of irradiated point per case	1
	Laser–tissue distance (mm)	2 (non-contact)
	Application technique	Static
	Total treatment sessions per week	2
	Frequency of session/week	Twice a week
	Time interval	3 days (72 h)

Giảm thời gian lành vết thương và giải quyết hoàn toàn tổn thương, giảm đau ngay lập tức

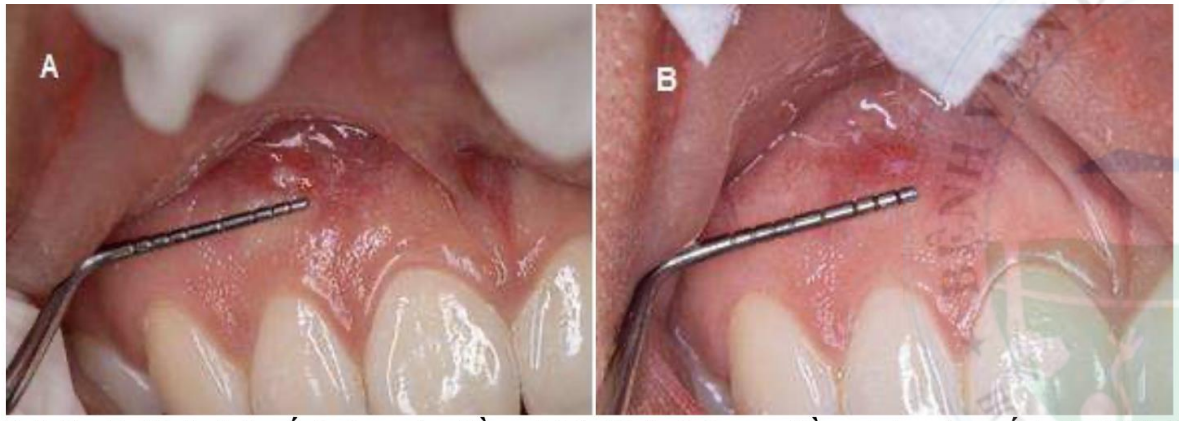
Hanna, R., Miron, I. C., & Benedicenti, S. (2024). Journal of clinical medicine, https://doi.org/10.3390/jcm13072007

TẠP CHÍ Y DƯỢC HỌC CẦN THƠ – SỐ 47/2022

ĐÁNH GIÁ KẾT QUẢ ĐIỀU TRỊ ÁP TƠ TÁI PHÁT BẰNG LASER DIODE MỨC NĂNG LƯỢNG THẤP TẠI BỆNH VIỆN TRƯỜNG ĐẠI HỌC Y DƯỢC CẦN THƠ NĂM 2020-2022

Phạm Lê Cẩm Tú*, Phan Võ Huy Bình, Đỗ Thị Thảo

Trường Đại học Y Dược Cần Thơ



Hình 3. A) Hình ảnh vết loét trước điều trị. B) Hình ảnh sau điều trị 4 ngày, vết loét đã lành

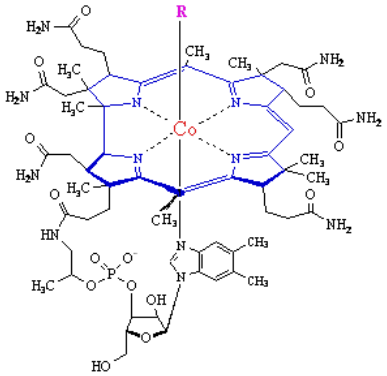
1 lần điều trị, bao gồm 4 lần chiếu, mỗi lần 45 giây, khoảng cách giữa các lần là 30 giây, tổng thời gian chiếu là 3 phút.

Thông số: công suất 500mW, bước sóng 810nm, đầu chiếu đường kính 400µm, chiếu cách niêm mạc 2mm, chuyển động xoay tròn bao phủ toàn bộ sang thương

- ❑ **Giảm đau tức thì**
- ❑ **Nhanh lành thương.**
- ❑ **Liệu pháp thay thế cho phương pháp sử dụng thuốc thông thường**

=> Tránh những biến chứng do sử dụng thuốc trong thời gian dài gây ra

JABFM
JOURNAL OF THE AMERICAN BOARD OF FAMILY MEDICINE



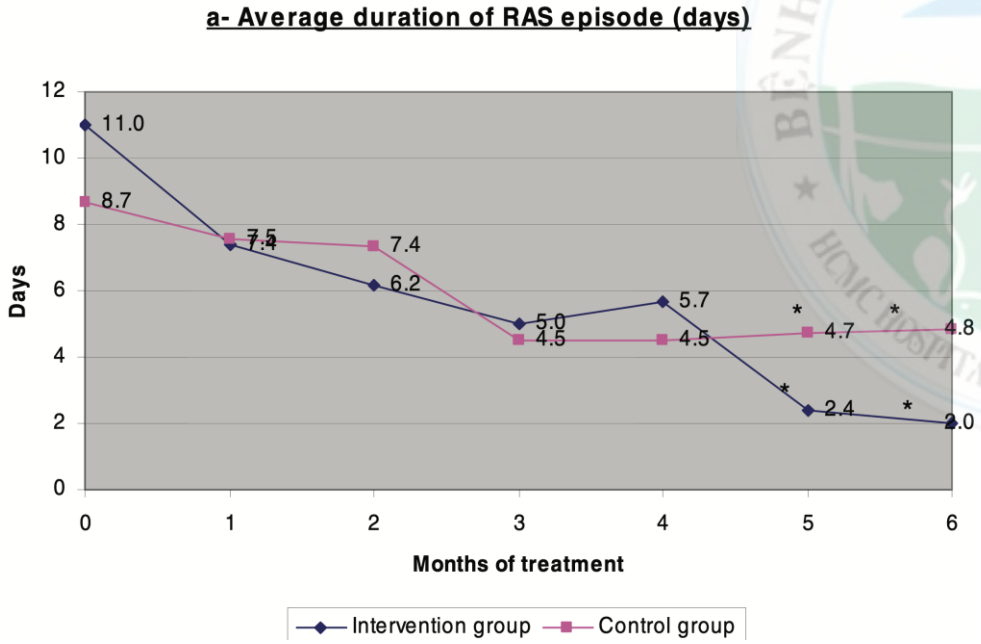
Research Article | Original Research

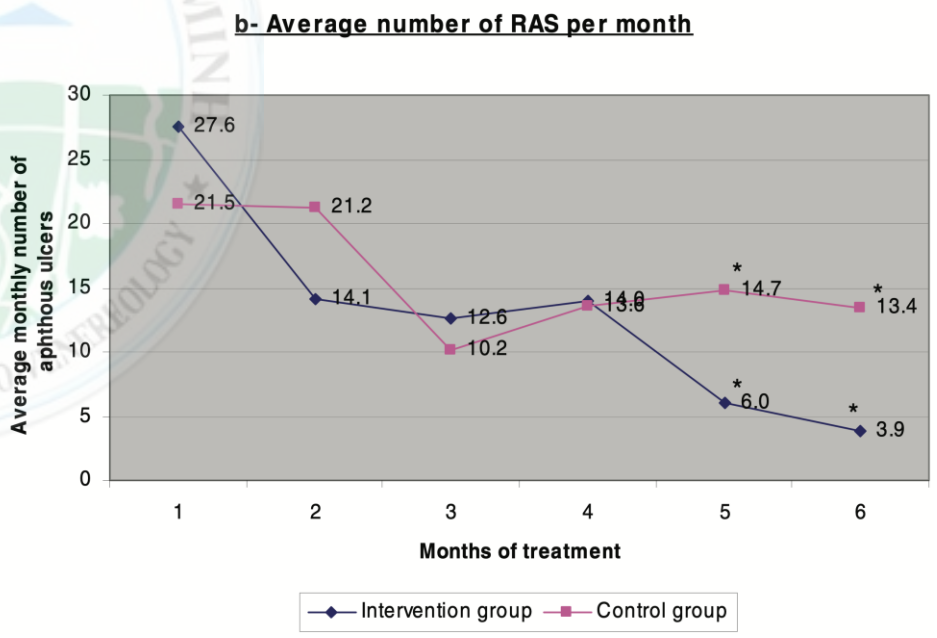
Effectiveness of Vitamin B_{12} in Treating Recurrent Aphthous Stomatitis: A Randomized, Double-Blind, Placebo-Controlled Trial

Ilia Volkov, Inna Rudoy, Tamar Freud, Gabriel Sardal, Sody Naimer, Roni Peleg and Yan Press

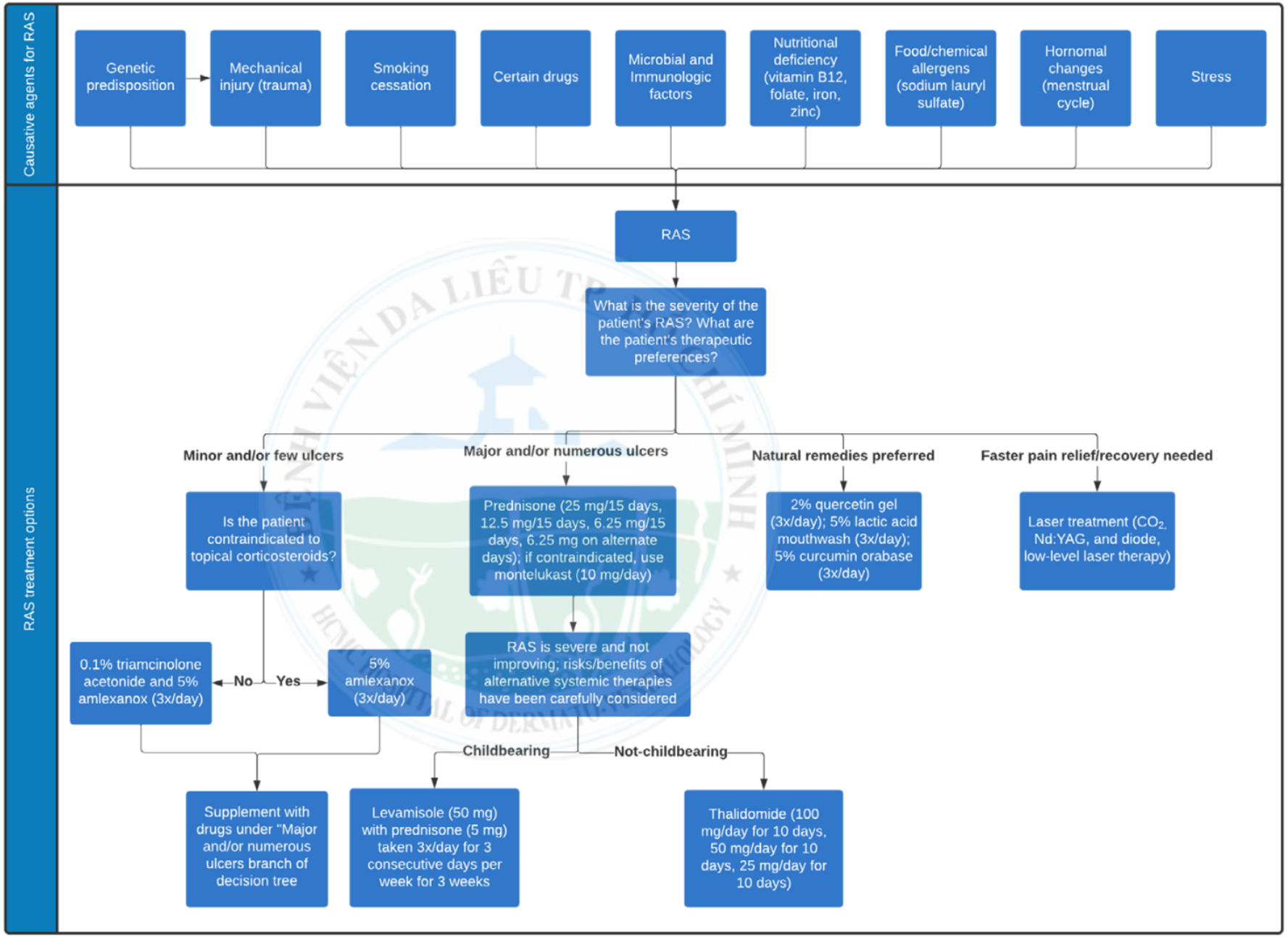
The Journal of the American Board of Family Medicine January 2009, 22 (1) 9-16; DOI: https://doi.org/10.3122/jabfm.2009.01.080113

Liều dùng 1000 µg vitamin B12 ngậm dưới lưỡi 1 lần/ ngày





Điều trị bằng vitamin B12, đơn giản, rẻ tiền và ít rủi ro, hiệu quả đối với những bệnh nhân RAS



Recurrent aphthous stomatitis treatment recommendation decision tree

Lau, C. B., & Smith, G. P. (2022). Recurrent aphthous stomatitis: A comprehensive review and recommendations on therapeutic options. *Dermatologic therapy*, *35*(6), e15500. https://doi.org/10.1111/dth.15500

PHÒNG BỆNH


HẠN CHẾ STRESS CĂNG THẲNG
GIỮ GÌN VỆ SINH RĂNG MIỆNG
ĐIỀU TRỊ SỚM VÀ TÍCH CỰC CÁC BỆNH LÝ KÈM THEO
CHẾ ĐỘ ĂN UỐNG LÀNH MẠNH ĐẦY ĐỦ CHẤT DINH DƯỠNG

KẾT LUẬN

1

Đây là một trong những bệnh lý niêm mạc miệng phổ biến nhất đặc trưng bởi một hoặc nhiều vết loét đau, tái phát nhiều lần

2

Lâm sàng gồm 3 dạng

- ❑ Loét aphthous thể nhỏ
- ❑ Loét aphthous thể lớn
- ❑ Loét aphthous dạng herpes

3

Điều trị chủ yếu là thuốc thoa tại chỗ
Laser năng lượng thấp hiệu quả giảm đau nhanh

4

Chế độ ăn uống sinh hoạt hợp lý, lành mạnh, hạn chế stress, căng thẳng để phòng ngừa tái phát

XIN CHÂN THÀNH CẢM ƠN
SỰ THEO DÕI CỦA QUÝ ĐỒNG NGHIỆP