



BÁO CÁO GIAO BAN CHUYÊN MÔN

GIẢI PHÁP NÀO CHO MỤN CỐC LÒNG BÀN CHÂN?

Ths.BS Huỳnh Thị Công Nhận

Thành phố Hồ Chí Minh, ngày 30 tháng 6 năm 2023



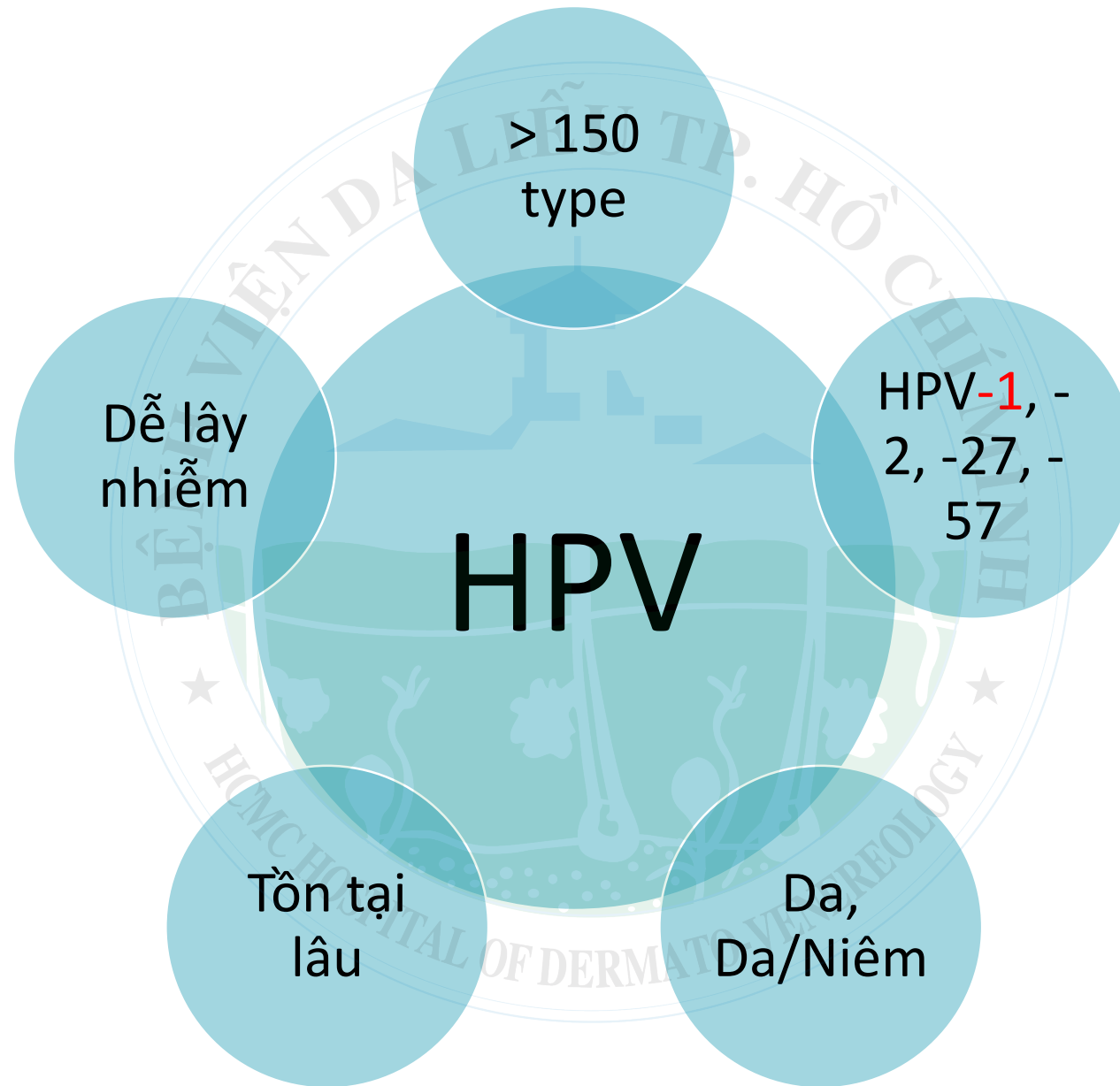
40%
Nhiễm HPV

7-12%
Mụn cóc

14%
Tỷ lệ mắc hàng năm



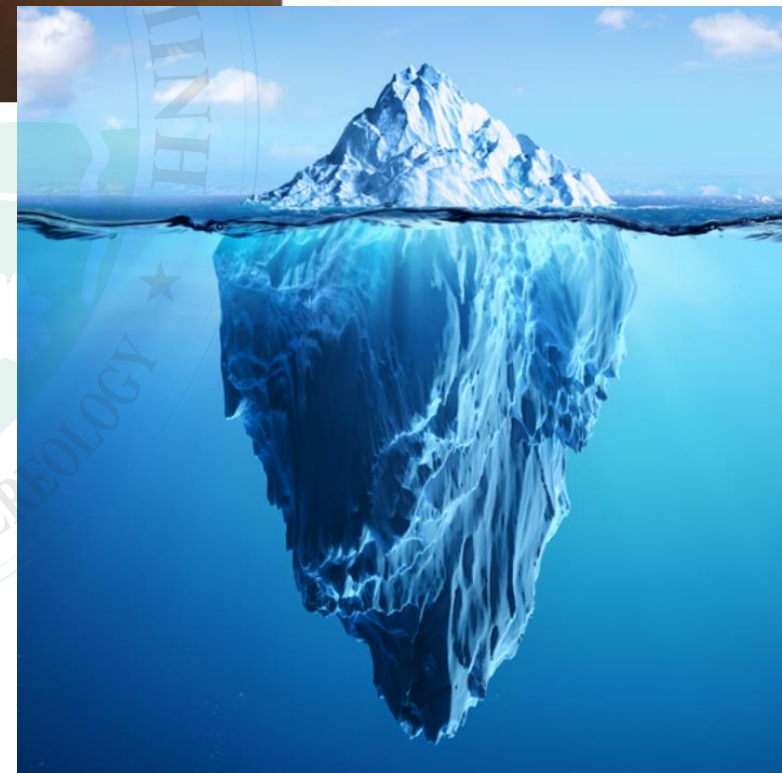
2%



KHÁNG TRỊ



TÁI PHÁT



MỤN CỐC LÒNG BÀN CHÂN KHÁNG TRỊ

- 1/3 mụn cóc ngoài sinh dục, đặc biệt mụn cóc LBC và quanh móng kháng trị
- Định nghĩa: không rõ ràng
- Kháng với nhiều phương pháp điều trị
- Tái phát nhanh sau điều trị
- Tồn tại >6 tháng
- Tồn tại >2 năm và hoặc thất bại với ít nhất 2 phương pháp điều trị

**CHỜ ĐỢI
LÀ
HẠNH
PHÚC!!!**



ANDREW MATTHEWS

tác giả bộ sách bán chạy

ĐỜI THAY ĐỔI KHI CHÚNG TA THAY ĐỔI

Bản dịch của Võ Hồng Sa

HẠNH PHÚC LÀ KHÔNG CHỜ ĐỢI

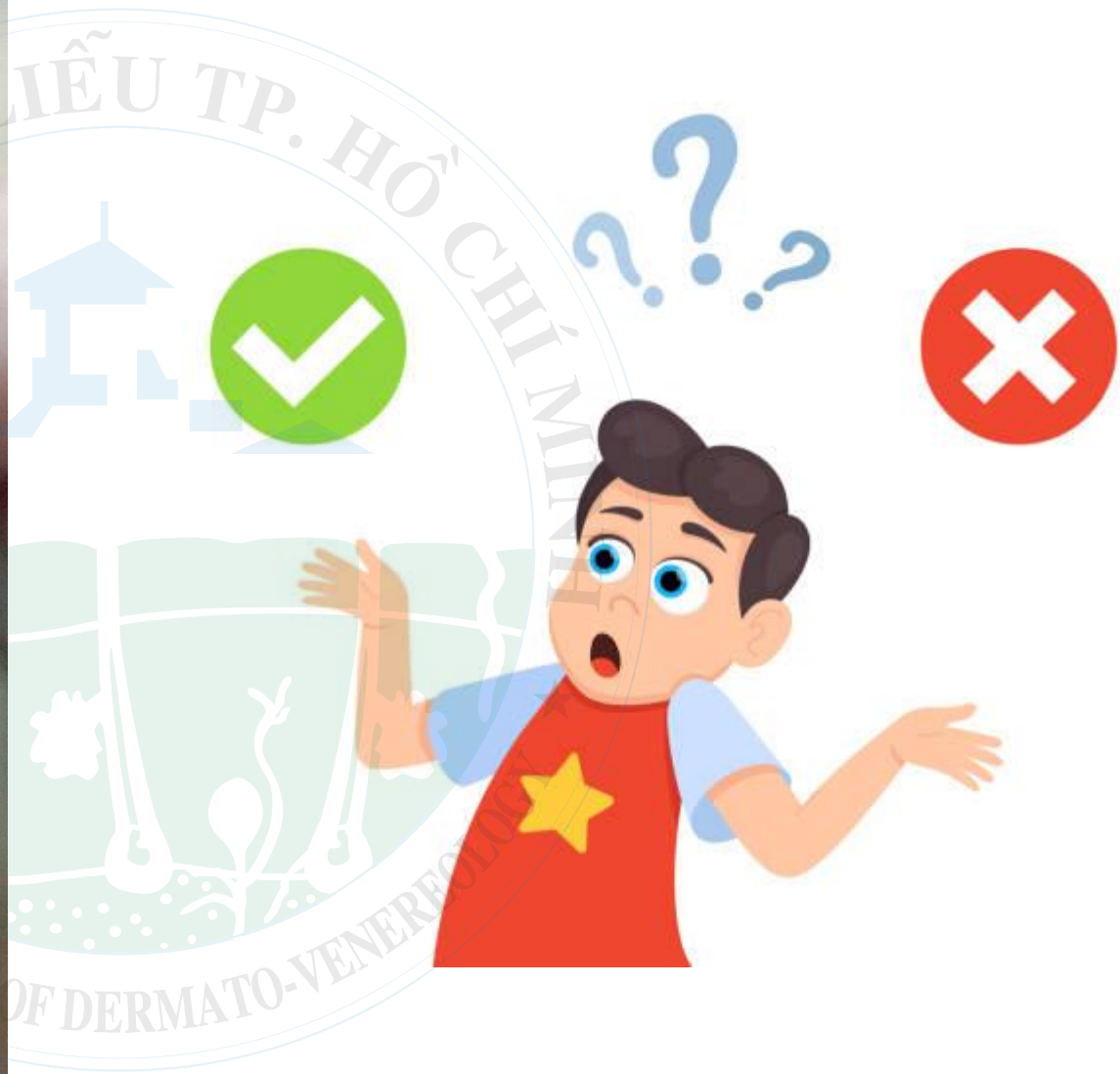
Happiness in Hard Times



KHI NÀO MỤN CỐC NÊN ĐIỀU TRỊ?

- Mụn cóc có triệu chứng, gây ảnh hưởng chức năng
- Gây ảnh hưởng về mặt thẩm mỹ, tâm lý
- Có nhiều thương tổn
- Thương tổn lớn
- BN lo ngại việc lây truyền cho người khác hoặc cho bản thân
- Suy giảm miễn dịch
- BN yêu cầu điều trị

British Journal of Dermatology 171.4 (2014): 696-712.
Journal of Osteopathic Medicine 118.2 (2018): 92-105.



British Association of Dermatologists' guidelines for the management of cutaneous warts 2014

Cure rates are lower at this site probably due to a thicker cornified layer and subsequent poorer penetration of treatments to the lower epidermis. Paring, if used to remove excess skin from warts before treatment, should avoid damaging surrounding skin because of the risk of spreading infection

Salicylic acid (15–40%) topical paints or ointments¹²

Cryotherapy, fortnightly for 3–4 months^{12,32}

Salicylic acid and/or cryotherapy used with more aggressive regimens is probably more effective than standard regimens, but care is needed with worse side-effects. Combination treatments can be undertaken^{10,17,20,21}

Other treatments: dithranol,⁸⁷ 5-FU,⁹³ formaldehyde,⁷⁸ glutaraldehyde,³⁵ hyperthermia,⁵⁵ laser,^{58,65} PDT,^{68,73} podophyllotoxin,⁹⁰ topical immunotherapy^{133,136}

Wait and See	65%-78% spontaneous remission in 2 y ^{43,50} ; 0%-58% cure rate ^{2,3}	Cost-effective and no side effects ³ ; HPV-1 subtype has 58% cure rate ³ ; children aged ≤ 12 y have higher spontaneous remission rate ²	May take months to years; may recur; patient needs to alter behaviors to prevent spread of infection; not recommended for immunocompromised patients ⁴⁵ ; HPV-2, -27, and -57 have only a 7% cure rate ³
Destructive			
Surgical removal (curettage, ²⁶ cautery, ²⁶ dissection, electrodissection)	65%-94% success rate ^{26,31,43}	May need only 1 treatment ^{7,25} ; used on recalcitrant warts ^{7,13} ; allows histopathologic examination ¹³	Third-line treatment ⁵¹ ; health care visit required; scarring and wart recurrence up to 30% ^{13,25,26} ; prolonged recovery time ⁷ ; adverse effects: pain, scarring, bleeding and infection ^{13,25}
Salicylic acid (10%-60% salicylic acid [over-the-counter], ^{26,51} 70% salicylic acid [prescribed] ⁹)	14.3%-84% cure rate ^{2,26,33} ; 5%-92% cure rate ^{3,33,52}	First-line therapy ^{14,52} ; safe ^{9,43} ; self-applied ^{13,53} ; cost-effective ^{7,26} ; negligible pain ^{26,43} ; well suited for use in children ^{2,14,26} ; higher success rate in children aged ≤ 12 y ²	Health care visit required for prescribed preparations; requires weeks to months of daily therapy; detailed instructions ⁵ ; wart debulking ^{5,43} ; risk of systemic toxicity in children ^{26,51} ; prolonged treatment not recommended in children, pregnant woman, patients with diabetes, and patients with circulatory problems ^{14,31} ; adverse effects: contact dermatitis, pain, erythema, blistering, skin irritation, burning sensation, and burns ^{5,31,51}

Cryotherapy (liquid nitrogen)

6%-65% cure rate^{2,3,45}

First or second-line treatment^{9,51}; safe and cost-effective⁴¹; healing is usually quick⁴¹; HPV-1 has a 65% cure rate³; more effective in children aged ≤ 12 y²

Health care visit required; avoid in young children^{5,14,37}; postoperative pain may limit mobility^{7,43,44}; 30% wart recurrence⁵⁰; may require multiple treatments²⁵; may require wart paring^{26,43,44}; therapy often fails in plantar warts and reoccurring warts^{3,52}; aggressive therapy increases success and risk of adverse effects⁴⁵; use cautiously in patients with poor circulation^{26,31}; adverse effects: pigment changes, scarring, erythema, edema, pain, soreness, paresthesia, tendon and/or nerve damage, and blistering^{2,5,25}

CO₂ laser

64%-71% cure rate²⁶

Used on recalcitrant warts^{26,53} and for immunosuppressed patients²⁶

Third-line treatment⁵¹; expensive⁵; nonselective tissue destruction¹³; wart debulking⁴⁵; may need multiple treatments⁵; hazards related to laser plume^{26,41}; adverse effects: scarring, postoperative pain, pigmentary changes, and prolonged healing time^{5,26,51}

Comment and Controversy
Edited by Stephen P. Stone, MD

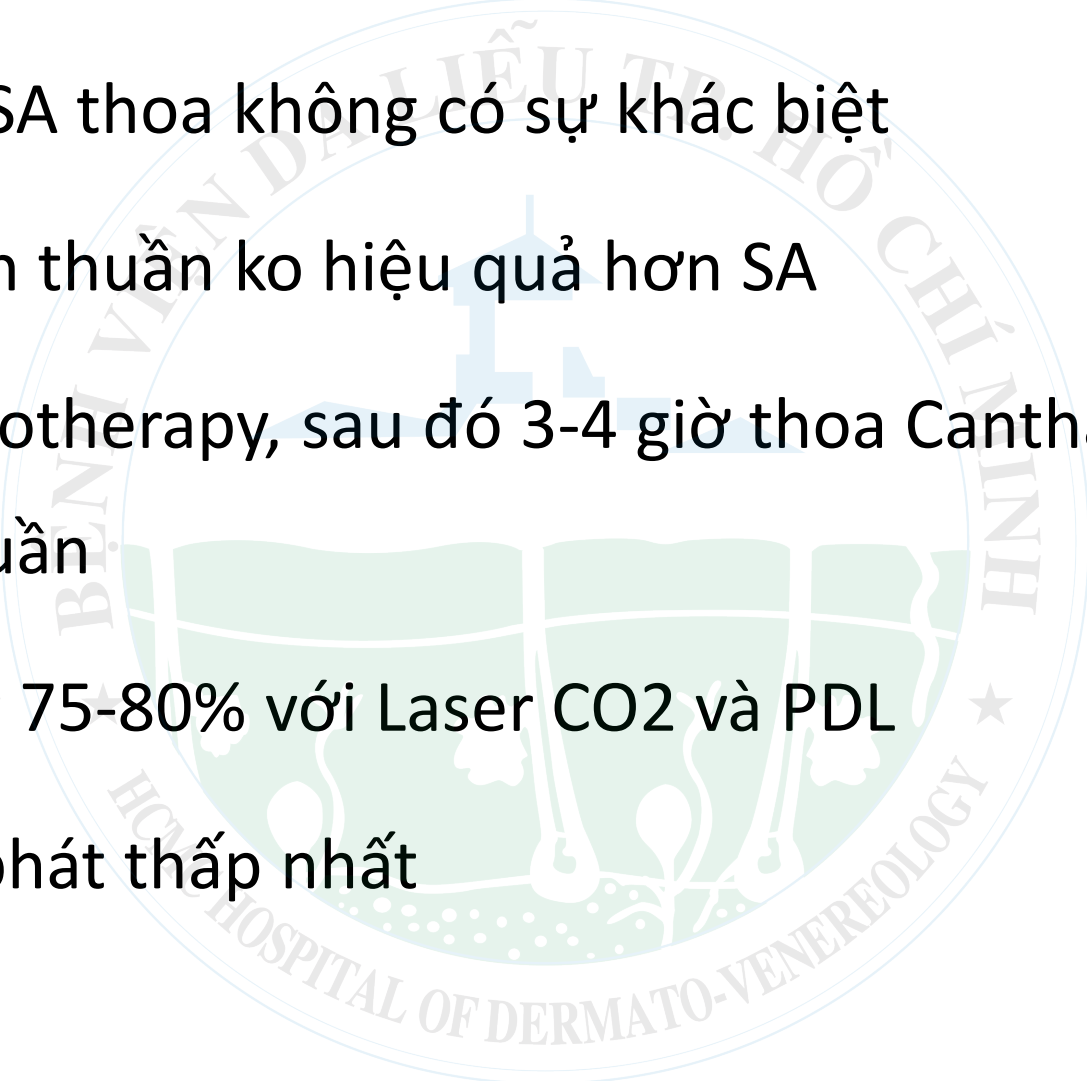
The status of treatment for plantar warts in 2021: No definitive advancements in decades for a common dermatology disease

Joshua Hekmatjah, BS^a, Mehdi Farshchian, MD, PhD^b, Jane M. Grant-Kels, MD^{c,*},
Darius Mehregan, MD^b

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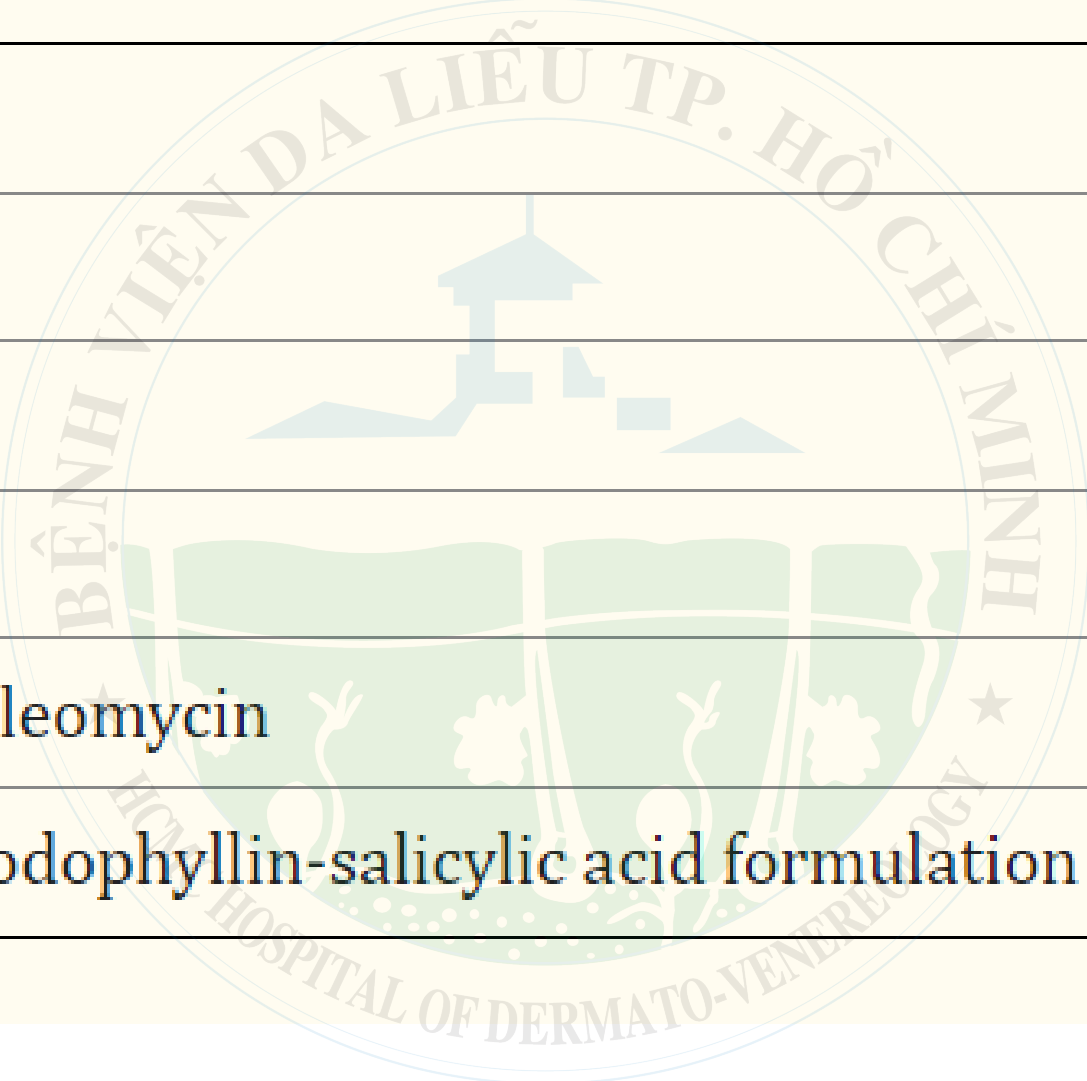
^b *Department of Dermatology, Wayne State University School of Medicine, Detroit, Michigan, USA*

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- 
- Cryotherapy và SA thoa không có sự khác biệt
 - Cryotherapy đơn thuần ko hiệu quả hơn SA
 - Nên kết hợp Cryotherapy, sau đó 3-4 giờ thoa Cantharidin bằng kín, lặp lại mỗi 3-4 tuần.
 - Tỷ lệ thành công 75-80% với Laser CO2 và PDL
 - PDL có tỷ lệ tái phát thấp nhất

Topical treatment for plantar warts: A systematic review

- 44 NC (1963 – 2020), gồm 2832 BN
- Tỷ lệ thành công thấp: SA thoa (13,6%) và Cryotherapy (45,61%)
 - Cryotherapy: 1-12 lần, thời gian TB 14.7 tuần.
- CPA formulation, immunotherapy, and intralesional bleomycin có tỷ lệ thành công cao (97.82%, 68.14%, and 83.37%)



Treatment	Cure rate
Salicylic acid	13.6%
Cryotherapy	45.61%
Laser	79.36%
Intralesional bleomycin	83.37%
Cantharidin-podophyllin-salicylic acid formulation	97.82%

CPS

- Cantharidin 1%, podophyllin (2/5/20%) và salicylic acid 30%
- Không đau khi bôi
- Băng kín khi bôi, rửa sau 4-8h (24-48h)
- Mụn cóc lòng bàn chân: 97.8% (93.3 – 100%)
- Tác dụng phụ: bóng nước, châm chích, đau.



Safety and effectiveness of cantharidin–podophylotoxin–salicylic acid in the treatment of recalcitrant plantar warts

- 75 BN mụn cóc LBC có thời gian TB 24.80 ± 3.06 tháng
- Khỏi hoàn toàn: 78% sau 1 lần, 28% sau 2 lần
- TDP: 81% đau, 15% phỏng rộp
- Không BN nào đau khi đi lại sau điều trị lần 1.



FIG. 1. Plantar aspect of the heel showing blister drained



FIG. 2. The perilesional zone after being debrided with a scalpel

[Am J Case Rep.](#) 2022; 23: e937867-1–e937867-8.

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PMCID: PMC9662077

PMID: [36348614](https://pubmed.ncbi.nlm.nih.gov/36348614/)




Cantharidin-Podophyllin-Salicylic Acid Formulation as a First-Line Treatment for Plantar Warts? A Case Report with Multiple Plantar Warts of Human Papillomavirus Biotype 27 and Previous Failed Treatments

[David Navarro-Pérez](#),^{A, B, C, D} [Sara García-Oreja](#),^{A, B, C, E, F} [Francisco Javier Álvaro-Afonso](#),^{A, C, D, E, F} [Mateo López-Moral](#),^{D, E, F} [Marta García-Madrid](#),^{C, D, E} and [José Luis Lázaro-Martínez](#)^{B, C, D, G}

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CRYOTHERAPY

Efficacy of cryotherapy for plantar warts: A systematic review and meta-analysis

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Mateo López-Moral  | Marta García-Madrid  | José Luis Lázaro-Martínez 

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Abstract

Recent systematic reviews of plantar warts continue to consider cryotherapy as one of the treatments of choice, but this method appears to have **lower cure rates than alternative treatments**. A systematic review using meta-analyses of the efficacy of cryotherapy in plantar warts treatment was performed. Systematic electronic searches were conducted. The primary endpoint was complete clearance of plantar warts. Risk-of-bias assessment was based on Cochrane Handbook recommendations. Meta-analyses used Review Manager v5.4.1 software. Cryotherapy appears to have lower cure rates than other treatments (odds ratio [OR] 0.31, 95% confidence interval [CI] 0.12–0.78) with substantial heterogeneity ($I^2 = 80\%$). A second subgroup analysis had low heterogeneity ($I^2 = 28.2\%$). **Subgroup analysis showed that plantar wart cure rates were significantly lower with cryotherapy compared to the physical treatment group** (OR 0.05, 95% CI 0.01–0.49) with substantial heterogeneity ($I^2 = 79\%$), and antiviral, chemotherapy, and retinoid group (OR 0.30, 95% CI 0.14–0.66) without heterogeneity ($I^2 = 0\%$). **Intralesional versus spray-on cryotherapy appears to be more effective** (OR 0.21, 95% CI 0.09–0.48). No difference in efficacy between two rounds of 10-s and four rounds of 5-s freeze–thaw cycles in cryotherapy was found. Evidence of the superiority of antivirals and chemotherapy over cryotherapy in the treatment of plantar warts was found. However, no evidence supports the superiority or inferiority of cryotherapy compared to other treatments.



ÁP LẠNH TRONG THƯƠNG TỔN

- Ra đời 1993
- ILC làm đóng băng toàn bộ thương tổn
- Tiếp cận được các thương tổn nằm sâu
- Mô mụn cóc dẫn lạnh kém
- ILC làm đông lạnh mụn cóc từ bên trong, không tổn thương thượng bì
→ không để lại sẹo

Intralesional cryotherapy versus Cryotherapy spray for the treatment of recalcitrant plantar warts: a prospective, randomized study

ÁP LẠNH TRONG THƯƠNG TỔN

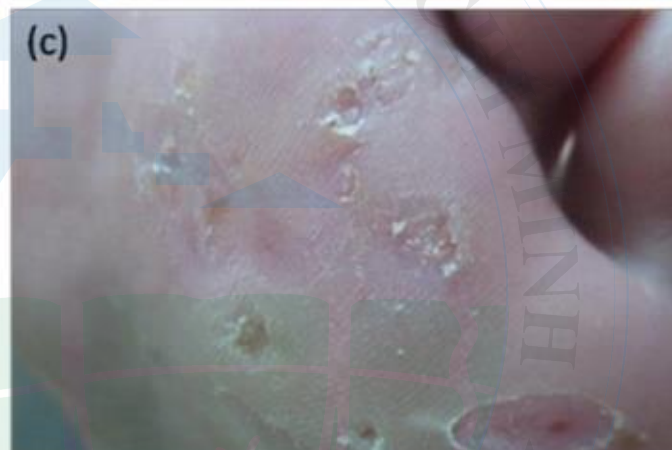
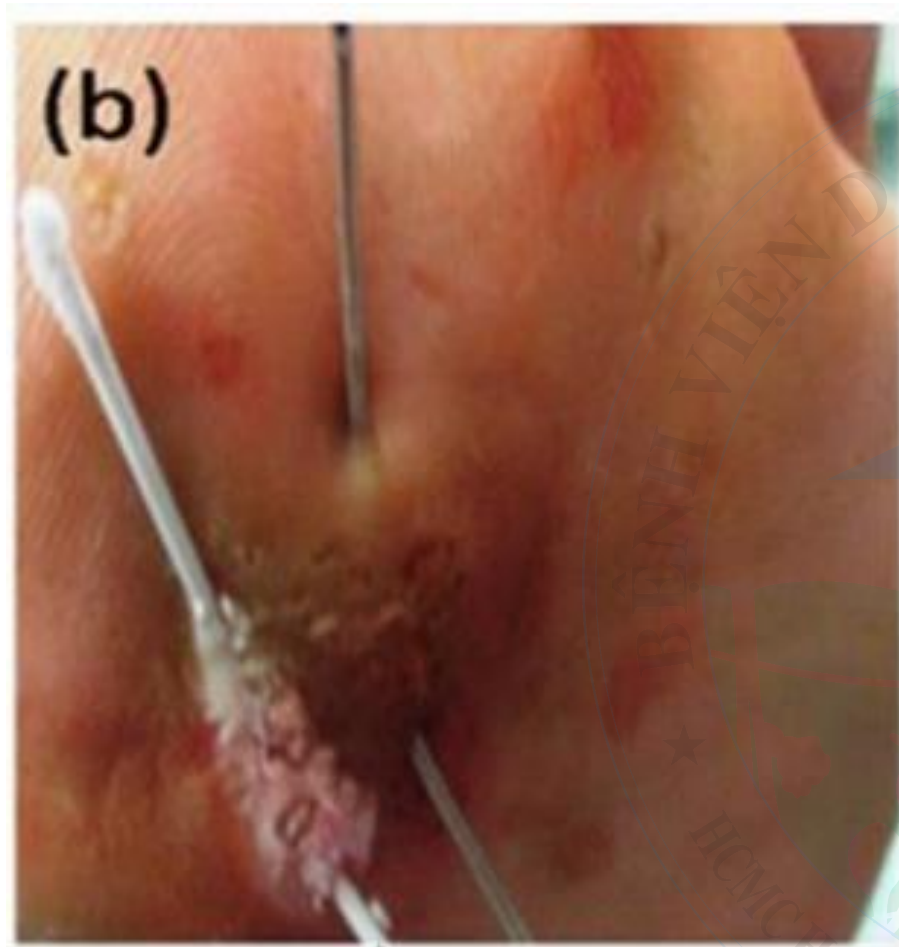
- 83,3% khỏi hoàn toàn, 16,7% khỏi một phần
- 82% sau lần 1, 18% sau lần 2
- Tỷ lệ hài lòng 81,7%

ÁP LẠNH XỊT

- 50,8% khỏi hoàn toàn, 33,9% khỏi một phần, 15,3% không đáp ứng
- 33,3% sau lần 3, 66,6% sau lần 5
- Tỷ lệ hài lòng 66.7%

ÁP LẠNH TRONG THƯƠNG TỔN







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Emerging Intralesional Treatments for Plantar Warts: A Systematic Review.

Martin A , Thatiparthi A , Nourmohammadi N , Nguyen C , Sung C , Atanaskova Mesinkovska N

Journal of Drugs in Dermatology : JDD, 01 Dec 2022, 21(12):1322-1329

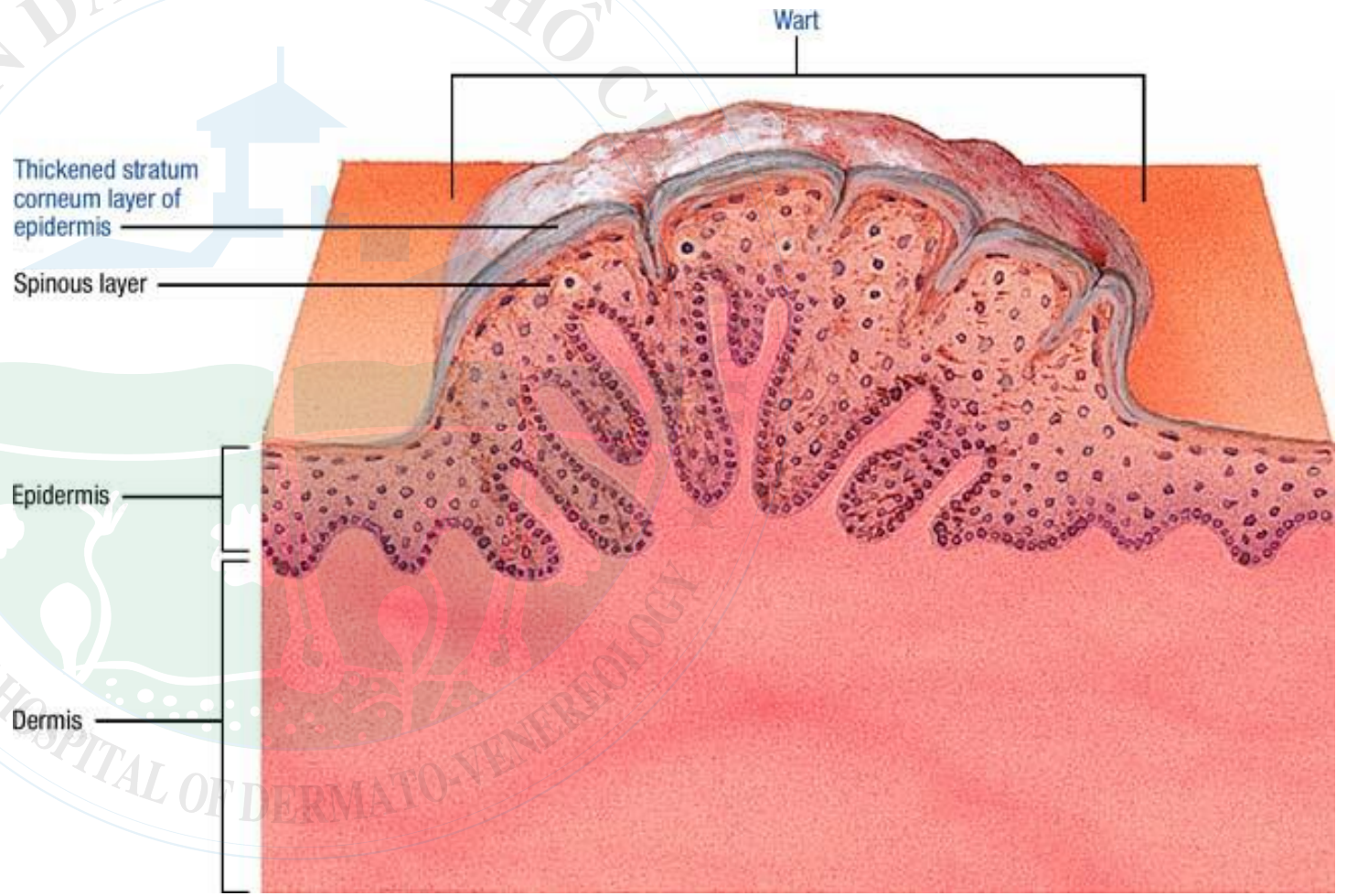
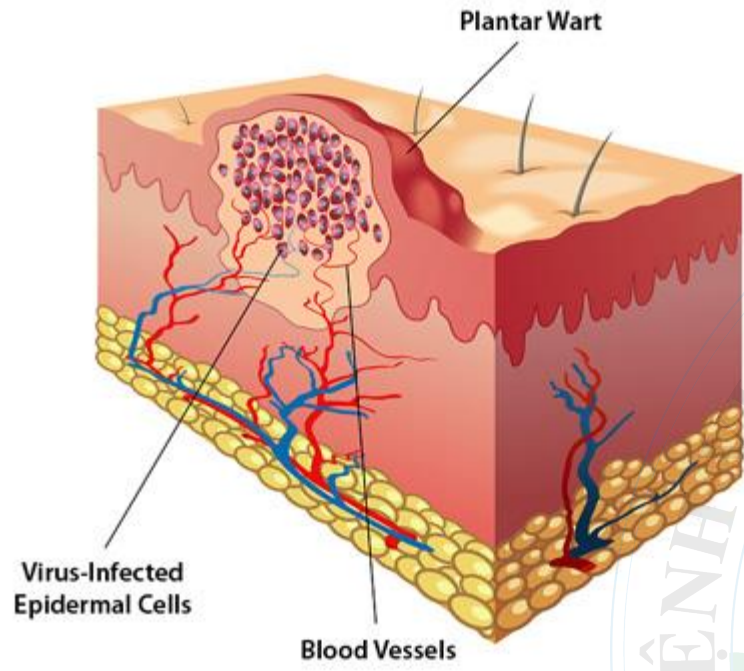
DOI: 10.36849/jdd.6735 PMID: 36468966

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Liệu pháp	Tỷ lệ thành công
Vitamin D3	80%
Bleomycin	74%
5-Flourouracil	59%
Kháng nguyên Candida	66%
Kẽm sulfate	70%
Dẫn xuất protein tinh khiết	67%

VITAMIN D3

- Tạo tín hiệu tiền viêm, thu hút tế bào trình diện KN
- Giải phóng cytokine IL-2, IL-8, IL-12, IL-18, TNF- α , interferon- γ
- Thúc đẩy đáp ứng Th1
- Kích hoạt T gây độc và T diệt tự nhiên tiêu diệt tế bào nhiễm HPV



Intralesional Vitamin D3 in Recalcitrant Palmoplantar and Periungual Warts: A Prospective, Observational Study

Annu Priya ; Jawaharlal Nehru Medical College (JNMC), Aligarh Muslim University (AMU), Aligarh, India

recalcitrant palmoplantar and periungual warts. Patients who had palmoplantar and periungual warts for more than 6 months and were non-responsive to at least two conventional treatment modalities were selected for the study. A maximum of four warts were injected with 0.2 mL of lignocaine (20 mg/mL), followed by intralesional injection of 0.2-0.5 mL of vitamin D3 (15 mg/mL), every 2 weeks for a maximum of four sessions. Response was assessed based on the reduction in the number of warts. A total of 63 patients were included in the study. The mean number of intralesional vitamin D3 injections required for complete clearance was 3.05 ± 0.83 (mean \pm Standard Deviation). Complete response was observed in 56 (88.9%) patients. Maximum clearance was observed in periungual warts (92.9%), followed by palmar warts (90.0%) and plantar warts (86.2%). The most common adverse effect was pain during injection (100.0%) and local swelling (25.4%). Two patients developed recurrence during follow-up. Immunotherapy with vitamin D3 appears to be an effective, inexpensive, and safe treatment in recalcitrant palmoplantar and periungual warts.

Immunotherapeutic modalities for the treatment of recalcitrant plantar warts: A comparative study

- Tiêu chuẩn: Mụn cóc LBC >2 năm và kháng với ít nhất 2 phương pháp điều trị
- 152 BN, chia 4 nhóm Kẽm sulfate 2%, Vitamin D3, KN Candida và nước muối sinh lý.
- Tiêm vào vị trí mụn cóc lớn nhất mỗi 3 tuần đến khi sạch thương tổn, tối đa 4 lần.

Item	Zinc sulfate (N=38)		vitamin D3 (N=38)		Candida antigen (N=38)		Saline (N=38)		χ^2	P-value
	No.	%	No	%	No.	%	No.	%		
Response										
No response	4	10.5	0	0.0	1	2.8	16	42	13.19	0.001* (S)
Partial	14	36.8	4	10.5	12	31.5	14	36.8		
Complete	20	52.7	34	89.5	25	65.7	8	21.2		

Vitamin D3 tiêm trong thương tổn có hiệu quả cao hơn, ít tác dụng phụ và giảm tỷ lệ tái phát

Question 9: What are the recommended clinical treatment methods for plantar warts, including multiple, recurrent, and refractory conditions?

Recommendation:

1. Local hyperthermia is suggested for patients with plantar warts. (2B)
2. Cryotherapy is suggested for patients with plantar warts. (2B)
3. Long-pulsed 1064 nm Nd: YAG laser combined with topical moisturizing cream treatment or optimized CO₂ laser treatment is recommended for plantar warts. Local injections of recombinant human IL-2 in combination with CO₂ laser are recommended for recalcitrant plantar warts. (1B)
4. Local injections of bleomycin are recommended for the treatment of plantar warts. (1B)

Risk Factor	Notes
Sex	Increased rate in girls ¹ ; increased rate in men ¹ ; increased lifetime risk in females ²⁷
Age	Rare in children aged <5 y ²¹ ; children aged ≥5 y and adolescents most affected ^{6,37} ; peak incidence at age 12-16 y ²⁶
Immune status	Increased risk in immunocompromised patients ¹⁶
Race	More common in whites ^{4,38}
Activities	Athletics ²³ ; occupation (students, manual laborers) ⁶ ; walking barefoot ^{24,39} ; communal shower use ²³ ; locker room use ²³ ; swimming pool use ²⁴ ; bathroom use ²⁶ ; pedicure with improperly sanitized tools ⁴⁰
Environment	Close contact with an affected person (family members, classmates, teammates) ⁵ ; dual-parent homes ³⁸ ; warm, moist environments ^{5,25} ; sun exposure
Season	More common in winter months ³⁹

Socioeconomic status	High household income ³⁸ ; advanced level of education in household ³⁸
Trauma	Contact with rough surfaces, ^{26,39} ; weight-bearing points most affected ^{39,41} ; wet, macerated skin ^{26,39} ; breaks in skin ³⁹
Preexistent wart	Autoinoculation ^{25,42}
Hygiene	Sharing unwashed shoes, socks, equipment, and other personal items ^{43,44} ; using nail files and pumice stones used for warts on other areas of skin ¹⁹ ; not changing socks daily ²⁵ ; contact with blood from a wart ¹⁴ ; not wearing protective footwear in communal showers and locker rooms; poorly ventilated footwear and athletic clothing; poor personal hygiene

PHÒNG NGỪA

Do not share towels, shoes, socks, equipment, or other personal items

Wear footwear in communal showers and locker rooms

Sanitize communal sports equipment with isopropyl alcohol, ethyl alcohol, or bleach

Wear well-ventilated footwear and athletic clothing

Maintain quality personal hygiene

Allow shoes to dry thoroughly between uses

Wash socks between uses

Receive the quadrivalent HPV vaccine

Treat current warts promptly

Cover current warts³

Avoid manipulating warts

Avoid trauma and maceration of the skin

Keep nail files and pumice stones used for current warts separate from those used for other body areas

Avoid walking barefoot

Change socks daily

Keep feet clean and dry

Check children's feet periodically

Avoid direct contact with warts on self or others

Avoid blood from a wart

KẾT LUẬN

- Mụn cóc LBC có tỷ lệ tái phát và kháng trị cao.
- Điều trị mụn cóc LBC còn gặp nhiều khó khăn.
- Các điều trị hàng 1,2 như SA bôi, Cryotherapy có tỷ lệ thành công thấp.
- CPS, áp lạnh trong thương tổn và liệu pháp miễn dịch, cũng như việc phối hợp các phương pháp điều trị mang lại nhiều hứa hẹn cho các BN mụn cóc LBC kháng trị.
- Phòng ngừa mụn cóc LBC giúp giảm lây truyền trong cộng đồng.



Thank you!
Have a nice weekend!