INTRALESIONAL CRYOTHERAPY VERSUS COMBINED CRYOTHERAPY WITH EITHER INTRALESIONAL CANDIDAL ANTIGEN OR BLEOMYCIN IN RESISTANT PLANTAR WARTS: A COMPARATIVE STUDY

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Introduction

Plantar warts represent a frequent condition in clinical dermatological practice. Human papillomavirus (HPV) type 1 is responsible for the majority of cases. Most therapies act to eliminate the affected epidermal cells by cell destruction but this may not always be effective in eradicating the latent virus in surrounding cells. Accordingly, treatments may fail, resulting in recalcitrant warts. It was proved that combined treatment including intralesional therapy, is more efficient than single treatment for plantar warts. Cryotherapy involves freezing affected tissue with liquid nitrogen and then slowly thawing it. Intralesional injection of Candida antigen improves the immune system's identification of the virus via delayed-type hypersensitivity, helping to eliminate HPV infection not only the targeted wart but also warts at distant locations. Bleomycin injection possesses antitumor, antibacterial, and antiviral properties that may be linked to its capacity to bind to DNA and destroy infected cells.

Aim of the work

To assess the efficacy of intralesional cryotherapy compared to its combination with Candidal antigen injection and compared to its combination with intralesional injection of bleomycin in treating resistant plantar warts.

Patients and Methods

A randomized controlled trial (RCT) was conducted on 60 patients who were clinically diagnosed with single or multiple plantar warts and recruited from the outpatient clinic of the Dermatology Department of Alexandria University Hospital. Patients were equally divided into three groups (20 patients in each group); Groups A, B, and C, patients were treated with intralesional cryotherapy alone, combined cryotherapy with intralesional injection of candidal antigen, and combined cryotherapy with intralesional injection of bleomycin respectively.

Results

Combined cryotherapy and intralesional injection with bleomycin showed the highest complete cure rate (70%), and the shortest duration of treatment. Whereas, the combined cryotherapy and intralesional injection with candida antigen showed the lowest complete cure rate (30%), and the longest duration of treatment.

Table (1): Comparison between the three studied groups according to outcomes

	Group A (n = 20)		Group B (n = 20)		Group C (n = 20)		Test of Sig.	p
No. of treatment sessions received								
Min. - Max.	2.0 - 6.0		6.0-5.0		6.0-2.0		H= 4.538	0.103
Mean ± SD.	4.90 ± 1.37		5.70 ± 0.47		4.60 ± 1.67			
Median (IQR)	6.0 (4.0 - 6.0)		6.0)-6.0 (5.0		6.0)-5.50 (3.0			
Response								
No response	0	0.0	10	50.0	0	0.0	FET= 23.632*	<0.001*
Partial	11	55.0	4	20.0	6	30.0		
Complete	9	45.0	6	30.0	14	70.0		
Duration until complete clearance (weeks)								
Min. - Max.	4.0 - 10.0		12.0 - 12.0		4.0 - 12.0		H= 13.507*	0.001*
Mean ± SD.	7.11 ± 1.76		12.0 ± 0.0		6.71 ± 2.55			
Median (IQR)	8.0 (6.0 - 8.0)		12.0 ()		6.0 (4.0 - 8.0)			

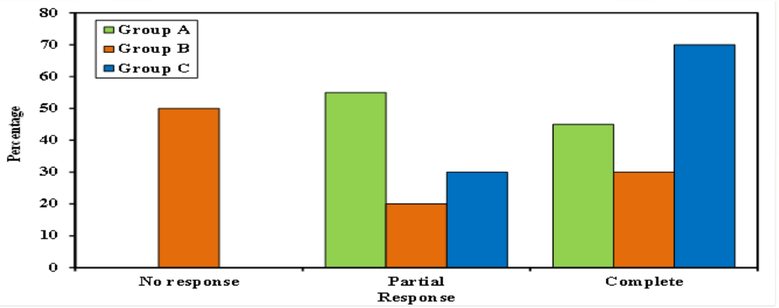

Figure (1): Comparison between the three studied groups according to response.

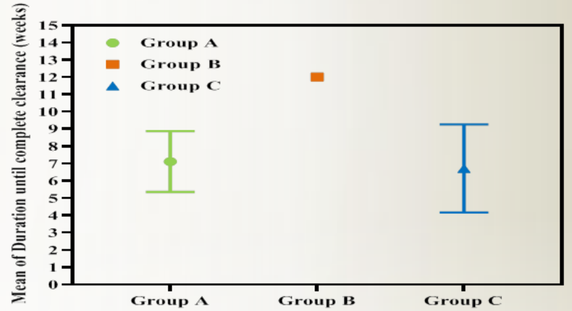

Figure (2): Comparison between the three studied groups according to duration until complete clearance (weeks)

Conclusion

Intralesional cryotherapy alone or when combined with intralesional bleomycin is preferred over combined cryotherapy with intralesional candidal antigen in the treatment of resistant plantar warts.