

Combination Intramuscular HPV Vaccine, Intralesional *Candida* Antigen Immunotherapy, and Topical 5-FU for Multi-refractory Plantar Warts: A Case Report

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Introduction

- Approximately 40% of people are infected with 1+ strains of HPV¹
 - 10% culminate in clinically-appreciable warts
- Plantar warts (*verruca plantaris*) are usually caused by HPV types -1, -2, -27, and -57²⁻⁴
- Usual treatment course⁵⁻⁷
 - varied, often difficult
 - 1st line: salicylic acid, liquid nitrogen, cryotherapy
 - 2nd line: curettage, electrodesiccation, chemical cautery
 - Alternatives: radiofrequency ablation, CO₂ lasers, antivirals, antimetabolic agents, immunotherapy, *Candida* antigen injections
 - limited documentation of multiple second-line therapies used concurrently
 - Rarely, quadrivalent IM HPV vaccination is used in therapy⁷

Case

An 83-year-old woman with hypertension, DM hyperlipidemia, left foot bone spur, and endometrial cancer presented to the dermatology clinic with plantar warts to both feet present for 3+ years causing a severely negative impact on daily living. She had been followed by another dermatologist and podiatrist and attended more than 20 office visits for the condition.

Treatments previously tried without improvement:

- tretinoin gel 0.025%
- monthly paring
- cryotherapy
- trichloroacetic acid 50%
- cantharidin salicylic acid
- podophyllin

Disclosures

No conflicts of interest to disclose. Patient permission granted for case and images. Case and images obtained with express consent of patient. IRB Exempt as per The Southern California Medical Group (SCMG).

Images

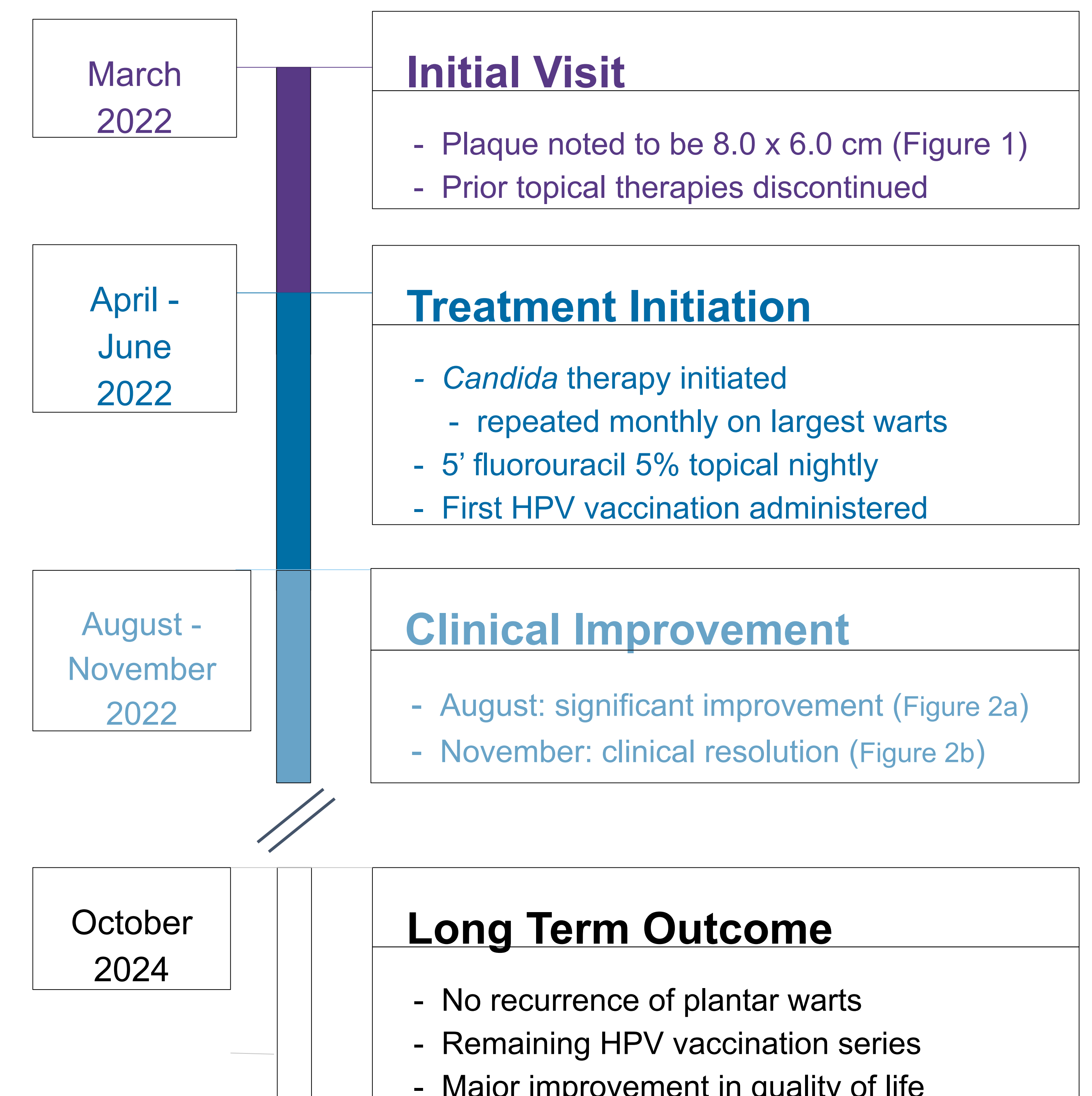


Figure 1. Two views of the patient's left foot at initial visit, March 2022.



Figure 2. A) Patient's left foot during treatment, August 2022 (left). B) Patient's left foot post-treatment, November 2022 (right).

Treatment Course



Discussion

- Plantar warts causing significant pain and disability for several years multi-refractory to multiple treatments
- Combination intramuscular quadrivalent HPV vaccine, intralesional *Candida*, and topical 5-FU led to resolution within several months
- Unclear which treatment(s) were significant
- Further work needed to determine potential of combination

References

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