# An Effective Treatment Method in Periungual and Subungual Warts: Bleomycin Application with Prick Technique

Dear Editor,

Warts of the nail unit are commonly seen in daily dermatology practice. Although, various treatments such as topical salicylic and lactic acids and 5-fluorouracil, cryotherapy, and electrosurgery are frequently used in the treatment of warts, they may not be effective in some cases and can cause permanent nail deformity. [1-3] Because of these difficulties, alternative treatment options are increasing in the literature. Application of bleomycin with the prick technique is an effective and good treatment for nail unit warts. [1-3] Herein, we report two cases of nail unit warts which were resistant to previous therapies and treated successfully with bleomycin using the prick technique.

# Case 1

A 19-year-old female patient admitted to our outpatient clinic with periungual and subungual warts, which had been present for two years on her right thumb nail and resistant to many topical treatments and cryotherapy sessions. Following failure of these therapies, intralesional bleomycin with the prick technique was planned for the patient.

The vial containing 15 mg of powdered bleomycin sulfate was diluted with 15 mL of physiological saline. The nail unit was cleaned with povidone iodine. Approximately 0.5 mL of 2% lidocaine was injected bilaterally into the proximal and lateral nail fold junction and along with the lateral nail folds for local anesthesia (distal wing block) and after that a tourniquet was applied to prevent bleeding [Figure 1A]. After the bleomycin solution was dripped onto the wart with an insulin injector [Figure 1B], a large number of holes were drilled with a 27-gauge sterile syringe needle with 1 mm intervals (prick technique), allowing the drug to penetrate into the wart [Figure 1C]. The procedure was performed for two sessions with four-week intervals. Between sessions, the bleomycin solution was stored in the

refrigerator at 4°C. In the follow-up of the patient at 12th week, the nail unit wart was completely healed [Figure 1D].

# CASE 2

A 36-year-old female patient to our outpatient clinic with periungual and subungual warts on her left thumb nail, which had been present for ten years [Figure 2A]. In her history, several methods were applied to the warts. After a punch biopsy which ruled out squamous cell carcinoma, bleomycin treatment with the prick technique was planned for the patient.

With the method described in the first case, 1 IU/mL bleomycin was administered with prick technique for three sessions. In the follow-up at 12th week, the wart was completely healed [Figure 2B].

Bleomycin has antiviral and antitumoral activities by inhibiting DNA and protein synthesis in virus and host cell.<sup>[4]</sup> Local side effects such as pain, tissue necrosis and onychodystrophy are less likely in prick technique compared to intralesional bleomycin, which is an another method.<sup>[4,5]</sup>



**Figure 2**: (A) 36-year-old female patient with periungual and subungual warts on her left thumb nail. (B) Follow-up of the patient at 12th week with complete resolution

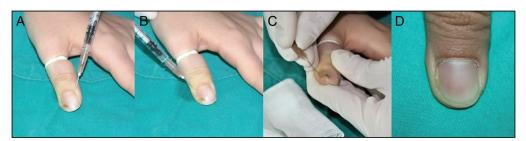


Figure 1: (A) Distal wing block and tourniquet application. (B) Bleomycin application as drops onto the wart. (C) Puncturing into the wart with a syringe. (D) Follow-up of the patient at 12th week with complete resolution

In conclusion, we report two cases of periungual and subungual warts, which were resistant to various treatments and successfully treated with bleomycin application with the prick technique. These cases are presented to emphasize that bleomycin application with the prick technique is an effective treatment option in nail unit warts.

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#### **Conflicts of interest**

There are no conflicts of interest.

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