

## Customized assembly of insole for immediate pain relief in plantar warts

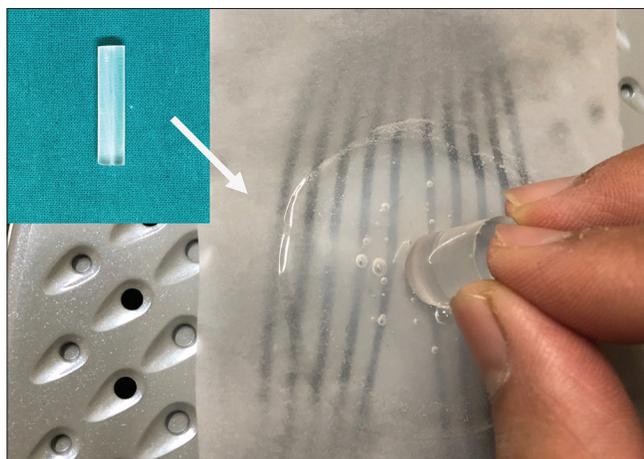
### Problem

Plantar lesions such as warts and callosities are painful on application of pressure and pose a problem to the patient.<sup>1,2</sup> Pain is usually significant enough to hamper daily activities severely. Apart from the specific treatment for the above mentioned dermatoses, one important way to alleviate pain is by supportive care which involves avoidance of pressure.

### Solution

In the past, silicon sheets/insoles have been used to provide cushioning and decrease pain; however, these are often expensive and not available in the desired size.<sup>2-4</sup> We propose the use of a glue stick fashioned into a flat disc with an opening in the centre to be applied on the lesion. Glue sticks are easily available at stationery shops. They are used for

art and craft purposes for sticking artificial sequins, pearls and other things. They are usually made up of silicone and rubber which makes them safe (non-inflammable), inert and skin-friendly. A small piece of stick of the required size is cut and gently melted by pressing it on a hot iron or any hot surface to obtain a flattened disc. A butter paper is kept in between to avoid sticking and excessive melting [Figure 1]. A hole is made in the centre of the disc as per the desired size [Figure 2]. This can be fixed onto the feet or shoes with a surgical or double-sided tape [Figures 3 and 4]. A thicker cushioning can be achieved by using a longer piece of glue stick. The elevation provided by this disc avoids pressure directly on the lesion (on sole or toe) itself thereby reducing pain. In addition, this can also be used to increase efficacy of topical preparations for warts by preventing loss due to contact with footwear. This is a cost effective and easy method



**Figure 1:** Glue stick of the desired size being melted



**Figure 2:** Discs prepared of different shapes and sizes

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**Figure 3:** Disc affixed over lesion by means of tape



**Figure 4:** Disc affixed over lesion by means of double-sided adhesive tape

to provide immediate relief from pain due to pressure. It can also promote healing if used after a surgical procedure. This tool can be customized according to the size and shape of the lesion and comfort of the patient. After having tried this device on a regular basis in our patients, significant reduction in pain was observed and the device was well tolerated. It can be used comfortably for a prolonged time during the day. This is an economical device that does not require any expertise to assemble. It can also be washed, cleaned and reused. [Video 1].

#### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Nil.

#### Conflicts of interest

There are no conflicts of interest.

**Sanjeev Gupta, Ajinkya Vinayak Gujrathi,  
Ravi Shankar Jangra<sup>1</sup>, Aneet Mahendra, Sunita Gupta<sup>2</sup>**

Departments of Dermatology and <sup>2</sup>Medicine, Maharishi Markandeshwar  
Institute of Medical Sciences and Research, MMDU, <sup>1</sup>Sun Skin Clinic,  
Ambala, Haryana, India

#### Corresponding author:

Dr. Sanjeev Gupta,  
#B2, MM Medical College Residential Campus, MMDU, Mullana,  
Ambala, Haryana, India.  
sanjeevguptadr@gmail.com

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