

Innovative Skin Hook

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Abstract

Skin hook is an important instrument for skin surgeries. There are situations, such as operating in a health camp or operating at a peripheral health center with a limited number of instruments, where skin hook is not available in the operation theater. We present an innovative design of skin hook, which can be prepared by surgeons in the operation theater with the help of readily available materials. The innovative skin hook is a simple, safe, and effective solution for performing skin surgeries in a limited-resource setup.

Keywords: Hook, innovative, skin

Keymessage: The innovative skin hook is a simple, safe, and effective solution for performing skin surgeries in a limited-resource setup.

INTRODUCTION

Skin hook is an essential equipment used for day-to-day skin surgeries such as scar revision, wound closure, excision of tumors, and facial lesions.^[1,2] It is difficult to perform fine surgery over skin without a skin hook. There are situations, such as operating in a health camp or operating at a peripheral health center with a limited number of instruments, where skin hook is not available in the operation theater. Center performing more number of surgeries in 1 day may also get short of skin hook as it is a very commonly used instrument. Recently, we faced a similar situation, wherein we designed an innovative skin hook using 24-gauge needles and mosquito straight artery forceps. Here, we would like to share the same idea.

CASE REPORT

A 38-year-old female patient with benign vascular tumor of left index finger at the level of distal interphalangeal joint was planned for tumor excision under regional block. At that time, sterilized skin hooks were not available in the operation theater. We designed innovative skin hooks and used them for this surgery [Figure 1]. We used disposable hypodermic 24-gauge needles and disposable insulin syringe. The cost of the material used is INR 12 (US\$0.2) for a single unit of innovative skin hook. The

24-gauge needles were taken and their tips were molded in the shape of a hook with the help of mosquito straight artery forceps. Each needle was attached to one long thin syringe (insulin syringe). These hooks were used to retract the skin during surgery [Figure 2]. The surgeon was able to perform this surgery comfortably with the help of assistant surgeons retracting the skin using innovative skin hooks.

DISCUSSION

Innovative skin hook is a rescuer of the surgeon who wants to perform fine surgery in a constraining situation. These hooks are very easy to prepare. Needles are readily available in the operation theater. There is no need to sterilize these hooks as needles are already sterilized.

Long slender design is the key feature of surgical skin hooks.^[1,2] Needles are relatively shorter in length. Length of the innovative skin hook can be increased by attaching the needle to an insulin syringe or a straight artery forceps.

Another important feature of surgical skin hook is the pointed end, which hooks the dermis.^[1,2] In innovative

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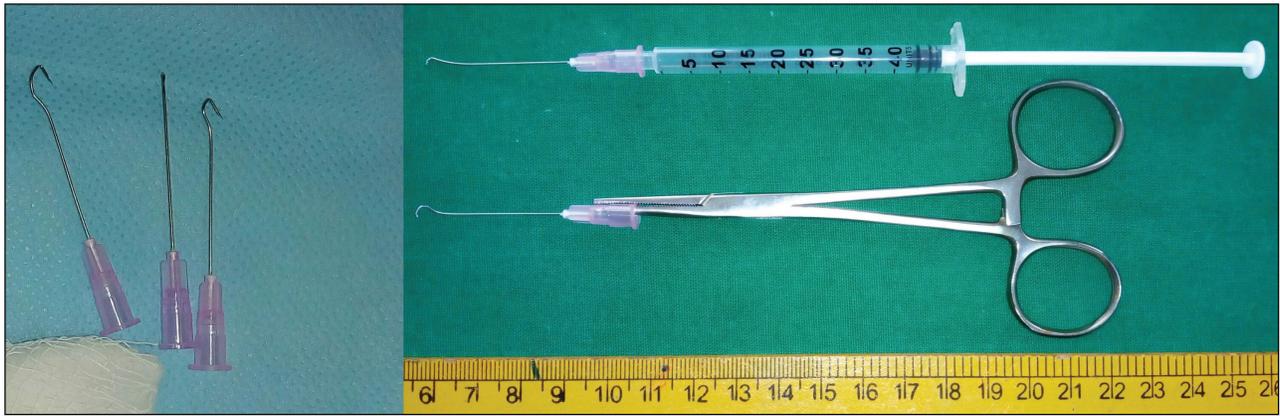


Figure 1: Innovative skin hooks



Figure 2: Finger tumor being operated using innovative skin hooks

skin hook, the end of the needle is pointed so it effectively serves this purpose.

Surgical skin hook has a solid tubelike design, whereas innovative skin hook is a hollow tube with the end being open. In our case, we did not find any additional trauma to the tissue while operating with the help of innovative skin hook.

Innovative skin hook is disposable and suitable for single use. It is cheap and cost-effective.

Innovative skin hook is suitable for gentle traction of skin only. If excessive force is applied then the needle may get dislodged from the syringe or the shape of the tip may get distorted. No assembly is available to guard the pointed end of the innovative skin hook. Like unguarded surgical skin hook, care should be practiced while handling the innovative skin hook also to prevent injury. No additional complication is noted with the use of innovative skin hook.

CONCLUSION

Innovative skin hook is a simple, safe, and effective solution for performing skin surgeries in a limited-resource setup. Materials used to prepare it are readily available in the operation theater.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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