

Shiao needle sleeve: a new depth control sleeve that fits different sized needles for creating recipient sites

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* The authors manufacture the depth control sleeves described in the following article and potentially may receive financial gain from them.

Introduction

Despite the popularity of custom cut blades in recent years, many hair transplant surgeons still prefer disposable hypodermic needles for recipient incisions. Reasons for this preference include low prices and the wide availability of the hypodermic needles. Another advantage is their slight dilating effect, which may help reduce follicular trauma during graft insertion.¹

Controlling the depth of the incision has always been a common problem when making recipient sites with hypodermic needles. To counter this, several techniques have been developed over the years. Dr. Mario Marzola discovered that a regular hypodermic needle could be bent twice into the shape of a swan's neck and head, thereby limiting the depth of incisions.²

The Shiao Needle Sleeve

In 2006, we published an article about a set of depth control sleeves that slipped over the needles and were cut to expose a small segment of the needle tips. This simple sleeve allowed sites of uniform depth to be created safely and rapidly.³ One drawback of this earlier design is that one must sort through different sized sleeves to find the one matching the specific gauged needle. To overcome this inconvenience, we have designed a sleeve (Shiao needle sleeve) that fits over the syringe connector instead of the needle. With this approach, we were able to fit four different gauges of needles using a single Shiao needle sleeve. The sleeves are made of polypropylene plastics and are conveniently pre-sterilized and disposable. Figure 1 shows the basic design of the Shiao needle sleeve and how it fits over four different gauges of needles.

Since the size of the syringe connector can differ from manufacturer to manufacturer, and the length of the needle can also vary, three sleeve sizes have been developed. The first and second sleeves are for BD hypodermic needles measuring 1 1/2 inches and 1 inch, respectively. These sleeves

expose 5mm of needle toward the end. They are designed for making recipient sites on Caucasians 5mm deep. The third sleeve is designed to fit 1 1/2 inch Nipo hypodermic needles with 6mm of needle exposed designed for creating sites 6mm in depth on East Asians. This difference is due to the fact that the follicle length from epidermis to dermal papilla is 5.5mm in Asians, compared to 4.5mm in Caucasians.⁴

References

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*Note: To request free samples, please email uhr@att.net with your address and specify the type of sleeve desired (patent pending) ✧

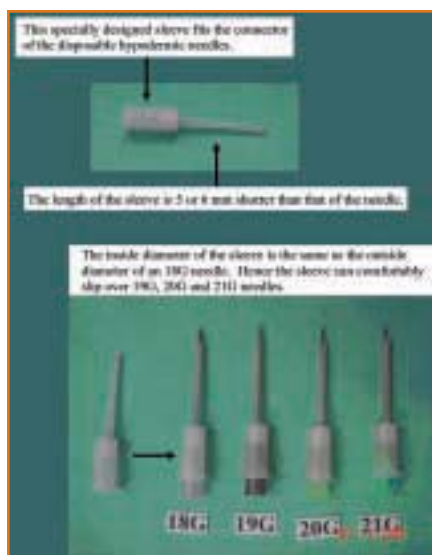
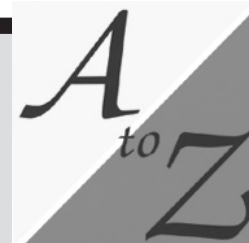


Figure 1. One Shiao needle sleeve can be used with four different gauges of disposable needles.



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