

Assembling a make-shift light source for a radio frequency device for skin ablation

Radio frequency-based procedures are frequently performed in dermatology offices.^{1,2} The presence of brighter light in the operating field adds to the precision of the procedure and improves results. Lesions such as small skin tags or dermatosis papulosa nigra are better treated when there is optimal lighting. Adjusting light sources can be difficult in small-practice settings, where there is a single dermatologist. We have devised a “piggy back apparatus” with a light-emitting diode light source for making radio frequency machines (for skin ablation) useable even in a very dark room. A commercially available Chinese light-emitting diode light with a goose neck to make it flexible (predominantly marketed for lighting laptop keyboard with USB power), is used for this purpose. The apparatus basically works on 5 volts, deriving electricity from a USB source. The light-emitting end where the light-emitting diode is located is fixed with a tape as piggy back, which adds only 20 g to the weight of the hand piece [Figure 1]. The USB end of the goose neck is extended by cutting the USB male jack which adds 1.25 m of wire in between. This makes the distance to the power source more versatile. The USB end is connected to any mobile phone charger or a portable energy bank (which works in the 5 Volt range) [Figure 2a and b]. The advantage of the device over commercially available light-emitting diode headgear is that in

situations when the opposite side of the neck, axilla, abdomen of the patient is to be illuminated for procedure, the latter may not be able to throw adequate light as much as the illumination directly on the hand piece. The limitation of the modification is that the life of the light-emitting diode source is unpredictable which may warrant frequent replacement.

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Conflicts of interest

There are no conflicts of interest.

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Figure 1: The mechanism at work with ample light thrown at the operating field

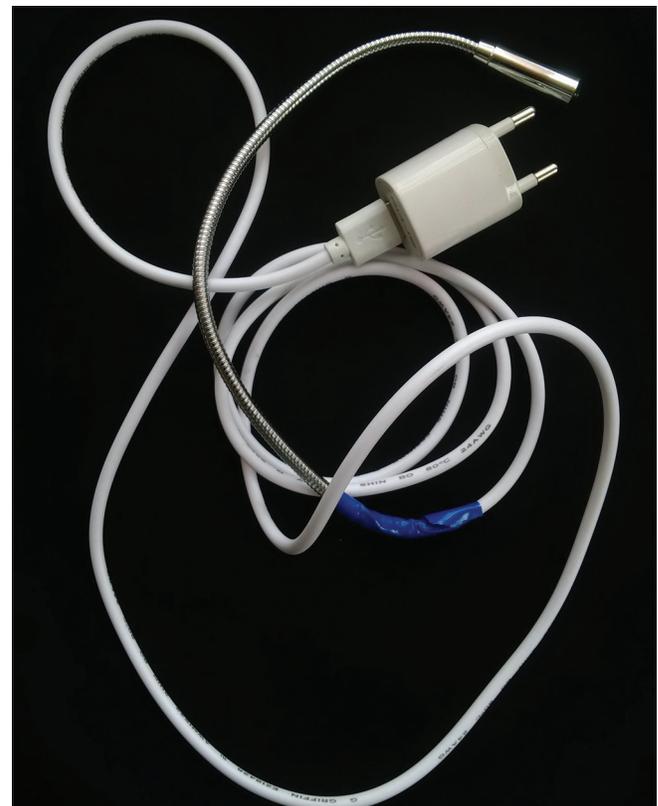


Figure 2a: The light source with a mobile phone charger as the power source



Figure 2b: The energy bank used as a portable alternative to power the device

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