ORIGINAL ARTICLE

Sandesh combihandle: a modification of a standard laryngoscope handle for usage either as a short or a standard long handle

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ABSTRACT

A modification of laryngoscope handle ‘Sandesh combihandle’ is described which can be used either as a short handle or as a standard long handle to overcome the difficulties and problems associated with swapping between the 2 handles during laryngoscopy.

INTRODUCTION

The short and the standard long handle of the rigid laryngoscope is presently being used worldwide especially in the economically poorer countries. Although many newer and better alternatives are available, they are used because of their low cost and availability.

The standard long handle may be routinely used for laryngoscopy in adult patients as it fits properly in the user’s hand providing a good grip. But in obese individuals, women with large breasts, pregnant women and during application of cricoid pressure, the long handle is easily obstructed either by the chest wall, enlarged breasts or by the assistant’s hand applying cricoid pressure. This makes laryngoscopy difficult and can be life threatening. In these situations the short handle may be considered as one among the effective and recommended alternatives.

The short handle may not be preferred for routine use because of a smaller grip. Often there may be uncertainty in choosing between the two handles or an unanticipated difficulty while using the long handle and one may have to switch to the short handle. In these situations it may appear ideal to have both handles by the side. But this may not be possible in many centres due to costs. Along with two handles two separate sets of blades also need to be available where cost becomes a concern again. Otherwise one has to remove the blade from the long handle and fix it to the short handle. Although this looks a feasible alternative often it has been found that the electrical connections between the blade and the handle may fail due to repeated use over-time resulting in total failure of the light source at a critical moment. This can be life threatening.

These problems can be addressed easily by the new ‘Sandesh combihandle’. It comprises of two parts which can easily be attached or detached. The two parts when attached function as a standard long handle and when separated function as a short handle.

Description of modification

The instrument consists of a proximal and distal parts. The proximal part is any standard laryngoscope handle which is modified to a shorter length. It houses the batteries and electrical parts, provides standard attachment to the blade with the electrical connections and functions solely as a short handle.

The proximal and the distal parts attached together function as the standard long handle. The end cap of the proximal part has grooves built-in which receives the threads from the distal part for a thread on attachment (figure 1).

The proximal and the distal parts attached together function as the standard long handle (figure 2). The distal part is simply a solid pipe which has threads at one end which can be easily attached or detached from the grooves on the end cap of the proximal part.
This can be performed without the need to remove the blade from the handle (figure 4). This addresses the problem of aforesaid electrical circuit failure at critical moments. The combined length can be made either same or even shorter than most long handles and after detachment the proximal part is also well shorter than most available short handles (figure 4). Also the dilemma of choosing the handle before every case is eliminated. A rubber washer may be kept in between the two parts for easy threading and unthreading.

It may seem justified to use short handle for routine use eliminating the need for a long handle. But while gripping the short handle the fingers of the user stay very close to each other and appear crumpled with less manoeuvrability. The thumb also appears to have no support as compared to the long handle (figure 4). For users who are well built with relatively large hands, short handle may seem acceptable for occasional use but may not be for routine use.
For airway management in code blue circumstances and other remote locations where a laryngoscope needs to be carried to the site of patient the Sandesh combihandle may be of great use. Also in centres where cost is a major factor and in places where anaesthesiologists prefer to carry a set of laryngoscopes to provide anaesthesia at different locations, it may be a cost-effective option to have a combihandle rather than a short handle and a long handle.

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REFERENCES
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