Methods in Medicine

AN IMPROVISED ORAL MUCUS EXTRACTOR FOR NEONATES - A SIMPLE LOW COSTING METHOD

Maj RP SINGH TOMAR^{*}, Lt Col BN BISWAL⁺, Lt Col MK BHERA[#]

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Introduction

Every birth is an emergency as the first few moments of an infant's life can be critical to prevent birth asphyxia, which is one of the leading causes of neonatal mortality and morbidity in India [1]. Apart from well trained personnel, proper equipment must be available in the delivery room for timely resuscitation that can have a lifetime consequence. Simple steps in resuscitation at birth follow the well known ABC's of resuscitation and establishing an open airway is the first step [2]. Secretions are first removed from mouth and then nose with the help of bulb syringes, mucus trap or an electric suction. Mucous syringes are expensive, not disposable and deep suction cannot be done. Adequate negative pressure cannot be developed with mucus traps (Romsons make), while very high pressure can accidentally occur with electric suction [3].

A simple emergency disposable mucus extractor can easily be improvised from an intravenous drip set for clearing oropharyngeal secretions in the neonates either in Labour Room/Operation Theatre or NICUs.

Preparation of mucus extractor

The intravenous (IV) drip set is removed aseptically from its packet and the tubing is cut bluntly, about 15-20 cm from the drip chamber (roughly measuring the outstretched tip of thumb and small finger). The proximal portion, with the rigid plastic bottle-piercing needle, is kept in the resuscitator's mouth for sucking. The distal end is used to clear secretions from the mouth of the neonate. The drip chamber acts as a mucus trap (Fig-1).

Advantages

This oral mucus extractor is made from a simple and readily available IV drip set that is sterile, disposable and has no chance of being reused. It is cheap, costing only seven to nine rupees against a Romson mucus extractor that costs about twenty rupees and is

Fig. 1 : Improvised oral mucus extractor

more effective as there is no air leak. By controlling oral sucking we can generate desired negative pressure. With a little practice, deep endotracheal suction can also be performed. The drip chamber can easily be emptied by positive pressure for collecting samples or if the chamber fills.

Such readily available and sterile oral mucus extractors are really useful in places where mucus extractor or electric suction machines are not available or working. During emergencies when sterility is often compromised [4] such improvised methods help to tide over the crisis.

References

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^{*} Graded Specialist (Paediatrics), ⁺Classified Specialist (Anaesthesia), Military Hospital Golconda, Hyderabad (AP)-08. [#]Classified Specialist (Paediatrics), Command Hospital (Central Command), Lucknow.