

educate the general public to watchfully avoid such toys till a ban is enforced in India.

**\*JMUTHUKUMARAN AND SVIVEK**  
*Department of Pediatric surgery,  
 Stanley Medical College,  
 Chennai, India.  
 \*kumarandr62@gmail.com*

## REFERENCES

1. Zamora IJ, Vu LT, Larimer EL, Olutoye OO. Water-absorbing balls: A “growing” problem. *Pediatrics*. 2012;130:e1011-4.
2. Mirza B, Sheikh A. Mortality in a case of crystal gel ball ingestion: An alert for parents: *APSP J Case Rep*. 2012;3:6.

## Indigenously Designed Meconium Aspirator

Meconium stained amniotic fluid (MSAF) complicates delivery in approximately 8% to 25% of live births. Approximately 5% of neonates born through MSAF develop meconium aspiration syndrome (MAS), and approximately 50% of these infants require mechanical ventilation. Meconium aspiration before or during birth can obstruct airways, interfere with gas exchange and cause severe respiratory distress [1], leading to high morbidity and mortality. Neonates who are born through MSAF and are apneic will require tracheal suction with meconium aspirator [2].

Meconium aspirator, recommended in Neonatal resuscitation guidelines is neither freely available nor routinely used in our settings. This stimulated us to develop an indigenous aspirator that is cheap, easily made and can be effectively used as meconium aspirator. This device can be made with the help of an 8 cm long piece of 1.25 cm diameter transparent simple plastic pipe (available as 1/2" pipe in market), two adaptors of endotracheal tubes and one disposable needle (**Fig. 1**). Create a small hole over junction of anterior one-third and posterior two-third of plastic pipe using red hot iron nail. This anteriorly placed hole in the pipe will allow a firm grip as well as easy occlusion of hole by thumb (**Web Fig. 1**). Push posterior part of needle (needle's anterior part removed) into hole to create a port. Attach two adaptors on both side of the pipe (size as required). Attach endotracheal tube on one side and suction point on other



**FIG.1** Indigenous meconium aspirator.

side. Occluding the hole will create suction in endotracheal tube (**Web video 1**).

This device has an advantage of being transparent as it helps in viewing the color, consistency, and amount of material – not possible in case of commercially available meconium aspirators. This device can be sterilized with 2% glutaraldehyde (Cidex) solution or Ethylene oxide. We have successfully used this indigenously designed meconium aspirator for resuscitation in many neonates and found it to be useful.

**SUNIL RATHI AND \*RAJESH GUPTA**  
*Department of Pediatrics, RD Gardi Medical College,  
 Ujjain, MP, India.  
 \*drrajesh93@gmail.com*

## REFERENCE

1. Burris HH. Meconium Aspiration. *In: Cloherty JP, Eichenwald EC, Hansen AR, Stark AR. Manual of Neonatal Care. 7th ed. Philadelphia: Lippincott Williams & Wilkins; 2012.P. 429.*
2. Kattwinkel J, Halamek LP, McGowen JE, Zaichkin J, Anderson J, Braner V, *et al.* Endotracheal intubation and laryngeal mask airway insertion. *In: Textbook of Neonatal Resuscitation by American Academy of Pediatrics. 6th ed. India: Jaypee Brothers Medical Publishers (P) Ltd; 2012. 176- 178.*