

## Do-it-yourself grommets

K H MAUNG<sup>1</sup>, T TUN<sup>2</sup>, N D STAFFORD<sup>1</sup>

<sup>1</sup>*Department of Otolaryngology - Head and Neck Surgery, Castle Hill Hospital, Cottingham, UK, and* <sup>2</sup>*Yangon Ear, Nose and Throat Hospital, Myanmar*

### Abstract

In the absence of a healthcare budget enabling the import of ready-made aural grommets, Myanmar ENT surgeons have devised an ingenious ‘home-grown’ solution. We describe how grommets are made from raw materials bought from the local market.

**Key words:** Otitis Media; Middle Ear Ventilation; Otolgic Surgical Procedures; Developing Countries; Myanmar

### Introduction

Even with the recent economic downturn, European and North American countries are fortunate in having robust healthcare budgets, which can fund the medical equipment required for the provision of good medical care to their populations.

However, such is not the case globally. Items that we take for granted in the UK, for instance grommets, are not always budgeted for.

In Myanmar (Burma), annual per capita healthcare spending is US\$394 (2.8 per cent of gross domestic product),<sup>1</sup> compared with US\$2317 per capita (8 per cent of gross domestic product) in the UK.<sup>2</sup> As a result, Myanmar clinicians have used their ingenuity to create solutions to commonly encountered healthcare problems.

Below, we describe how ENT surgeons in Myanmar have devised a quick, cheap and very effective method of producing their own aural grommets.

### Methods

The materials required to make grommets are as follows: a length of polythene tubing, a 21 gauge green needle, a pair of scissors and a cigarette lighter (Figure 1).

The polythene tubing (internal diameter 1.5 mm) is bought from the local market, at the cost of £1 per metre. It is cut into sections 7.5 mm long. Each section is then mounted on the tip of a 21 gauge green needle (Figure 2).

The end of the tube is then gently touched against the side of the cigarette lighter flame, which partially melts and rolls the leading free edge while the needle maintains the lumen (Figure 3).

The tube section is then turned around and the process repeated, producing a grommet (Figure 4).

Each grommet takes less than 3 minutes to make. The required number of grommets can be made very quickly. Any defective grommet is discarded.

Newly made grommets are threaded onto the needle and placed in a sterilising solution for future use.



FIG. 1

Materials required for grommets.

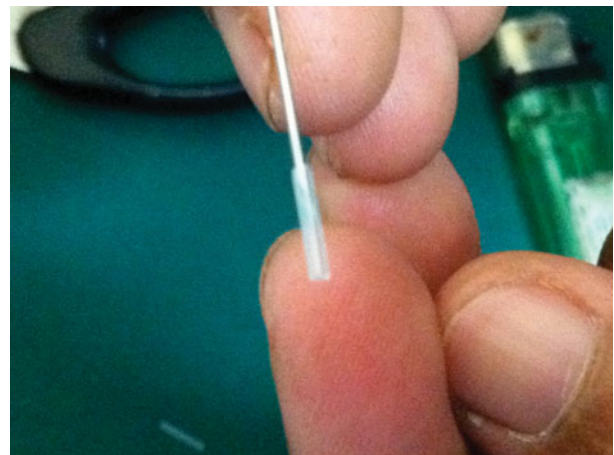


FIG. 2

The polythene tube section is mounted on the tip of a 21 gauge green needle.

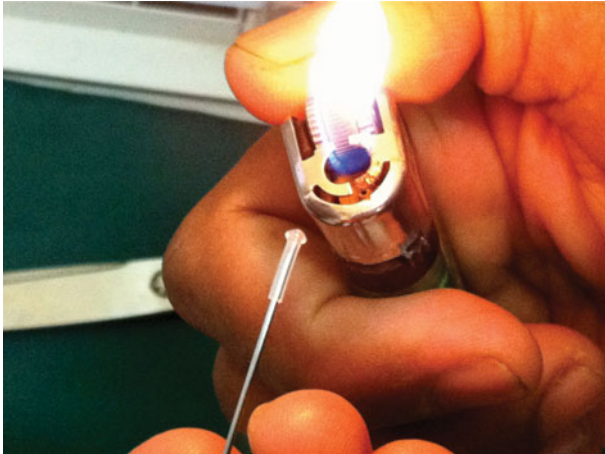


FIG. 3

The cigarette lighter flame is used to partially melt and roll the free edge of the tube section.

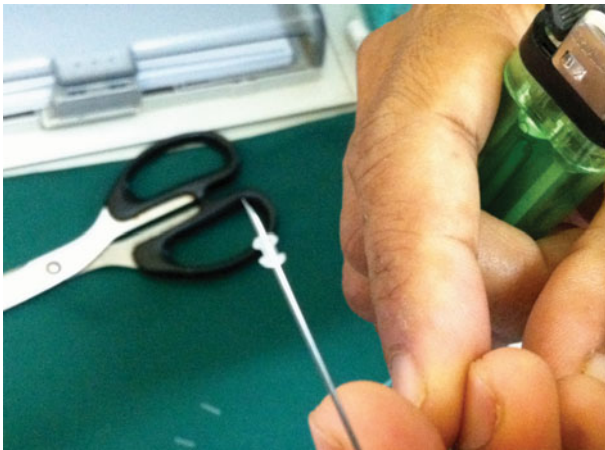


FIG. 4

The process is repeated at the other end of the tube, producing a grommet.

## Discussion

We have been advised that the second author's local ENT department have been using these grommets for many years, without any major complications. The average in-situ life of a grommet ranges from six to 10 months. Local audit data indicate that the incidences of otorrhoea and persistent perforation after grommet extrusion are 5 and 3 per cent, respectively.

As survival and functionality are the main priorities, there have obviously been no randomised, controlled trials to test clinical effectiveness.

## Acknowledgement

We dedicate this article to Professor Thein Tun and all Myanmar colleagues at Yangon Ear, Nose and Throat Hospital, in acknowledgement of their incomparable hospitality and kind help given to us during our visits to Myanmar.

## References

- 1 Myanmar. In: [http://www.searo.who.int/LinkFiles/Country\\_Health\\_System\\_Profile\\_7-myanmar.pdf](http://www.searo.who.int/LinkFiles/Country_Health_System_Profile_7-myanmar.pdf) [18 February 2011]
- 2 Healthcare costs around the world. In: [http://www.visual-economics.com/healthcare-costs-around-the-world\\_2010-03-01/](http://www.visual-economics.com/healthcare-costs-around-the-world_2010-03-01/) [18 February 2011]

Address for correspondence:

Mr Kyaw Htin Maung,  
15 Vicarage Meadow,  
Mirfield WF14 9JL, UK

E-mail: [joemaung@mac.com](mailto:joemaung@mac.com)

---

Mr K H Maung takes responsibility for the integrity of the content of the paper  
Competing interests: None declared

---