

Letters to the Editor

Alternative methods of application of topical preparations in otitis externa

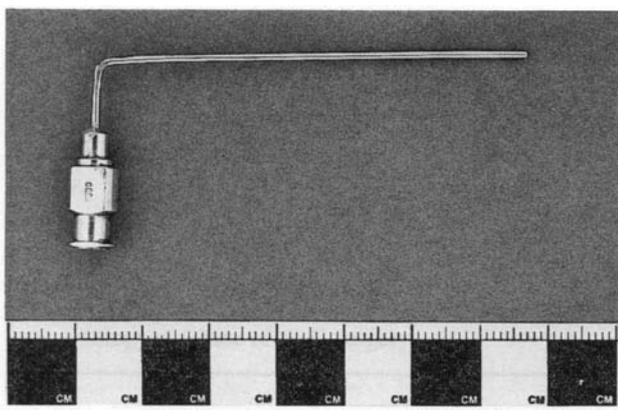
Dear Sir,

Mr Dekker's short communication in the *JLO* 1991; 105: 842-843 (October) highlighted the need for a specifically designed cannula for applying ointment or cream into an external auditory meatus (EAM) or mastoid cavity.

For the past 14 months at the Royal London Hospital we have been using such an instrument designed by the author and made by the hospital instruments department (see photograph). It is a blunt ended, right angled 19G cannula, 6.5 cm in length with a Luer lock for attachment to a 2 ml Becton Dickinson Luer lock syringe. The requisite preparation is squirted into a Gallipot and the Luer lock syringe aspirates the required volume before attaching the cannula.

The blunt end of the cannula minimises the risk of trauma should this come into contact with the EAM. After several prototypes it was found that 6.5 cm was the optimum length to allow the cannula to traverse the length of the EAM through a Gruber or Rosen aural speculum. The right angle allows an unobstructed view of the ear canal through an operating microscope permitting accurate placement of topical preparations. The Luer lock prevents the cannula flying off under pressure in the EAM and was an important omission in Dekker's suggestions.

We use the cannula to apply EMLA cream with precision to a small area of the tympanic membrane prior to grommet insertion or performing a transtympanic electrocochleogram and to apply antibiotic preparations to the ear canals of patients with otitis externa. Downs Surgical plc have made a batch of six cannulae for our E.N.T. department. They will assess demand before deciding if it should be introduced as an E.N.T. catalogue instrument.



Yours faithfully,
Duncan McRae F.R.C.S.
E.N.T. Registrar.
The E.N.T. Department,
The Royal London Hospital,
Whitechapel
London E1 1BB.

Dear Sir,

I agree the method of injecting dermatological creams or ointments into infected ear canals or radical mastoid cavities enjoys the advantages as described in the above article including the very circumscribed application to inflammatory foci.

However, there seems to be general reluctance amongst ENT surgeons to adopt this method, due to the potential hazard of propelling the sucker off an ordinary syringe and subsequent damage to delicate structures deep in the ear canal or the mastoid cavity, especially when using the rather viscous ointments.

May I therefore suggest to use syringes with a threaded Luer-Lock (as provided by Beckton Dickinson, B.D.^R No. 9603) securing the connection which renders that hazard impossible.

Thus even small bore suction tips (e.g. Mediplast No. 3164) can be safely used.

Furthermore ointments or creams can be preheated to body temperature which lowers viscosity and allows better penetration.

Yours faithfully,
A. Hilger F.R.C.S.
Dept. of Otolaryngology,
University Hospital of Wales,
Heath, Cardiff CF4 4XW

Dear Sir,

I read with interest the short communication by Dekker describing the use of a Zollner sucker tip and syringe for applying topical preparations to the ear in the treatment of otitis externa. I have found the same delivery system to be ideal for administering EMLA cream prior to myringotomy and grommet insertion in the outpatient department. Under direct microscope control, cream can be applied accurately to the tympanic membrane and external ear canal and a painfree procedure performed an hour or so later. It is however important to ensure no pockets of air are trapped in the ear canal as they may result in inadequate analgesia. Any potential inconvenience to the running of the clinic is avoided by either asking the patient to attend early or running a dedicated outpatient local anaes-

thesia list. I have inserted 67 grommets using this method and have encountered no significant problems.

Yours faithfully,

J. A. Cook,

Lecturer in Otolaryngology,

Royal Liverpool University Hospital.

Dear Sir,

During my work in H.N.O. Klinik of Tübingen University, in Germany (1980–1982) under supervision of Prof. D. Plester a special applicator was used to fill the external canal with antibiotic ointment to prepare cases with mild infection for ear surgery and also during the post-operative follow-up. This applicator was made of a 5 ml plastic syringe full of the required antibiotic ointment, with a small metal sucker attached to its tip Fig. (A). When I returned to Ain Shams University, Cairo, Egypt. This applicator was slightly modified and its uses were extended.

Part of a plastic catheter or i.v. line tube (5 cm long) was used to replace the metal sucker tip. This was cheaper, softer for the ear and can be used once and discarded to

avoid cross infection. The meatus is usually painted first with Castellani's paint (B.P.), which has antibacterial, anti-fungal and anti-eczematous actions. The tube of the applicator is put inside the meatus and the syringe plunger is pushed to fill the external canal with ointment from inside to out. The ointment can be left in the meatus for one week. The applicator may be given to the patient to refill the meatus every two days if needed. In the case of discharging ears, cream is substituted to avoid the obstructive effect of the ointment base.

The method has also been used in the treatment of otomycosis and has proved very effective in resistant cases. An excellent response has been seen also in all cases of external otitis, including furunculosis, and the uncommon non-malignant pseudomonas otitis externa.

It was also successful in management of granulomatous myringitis, and in protecting against water borne infection in cases with dry perforations and in open mastoid cavities. It should be noted that this method is not an alternative for systemic antibiotics. They should be prescribed whenever indicated.

This method is superior to using a gauze wick impregnated with ointment. This pack may obstruct the drainage of a discharging ear, if they are not regularly changed and the collected discharge may lead to more inflammation.

It is also superior to the use of ear drops. The action of such drops usually lasts for few hours even if it is applied frequently, while the action of the ointment lasts 24 hours daily as long as it is in contact with the inflamed skin. Also, in presence of an ear perforation or grommet, ototoxic antibiotics can reach the inner ear through the round window membrane if they are provided in drop form. In the case of ointment, it does not reach the inner ear, due to its fatty base. I did not see a single case of ototoxicity in the last ten years using this method. It also blocks the meatus preventing water, which is a common source of infection, gaining access inside the ear.

Yours faithfully,

Dr Mohammed El-Begermy,

Assistant Professor of Otolaryngology,

Ain Shams University, Cairo.

