CASE REPORT

Self-medication complicating pseudo membranous conjunctivitis

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SUMMARY

We aim to highlight the prevalence of using local medications for curing eye ailments in a rural population and the harmful consequence of resultant disease, ranging from something as mild as conjunctivitis to sight-threatening conditions. This case report will address one such incidence where in a local village, the doctor known as a registered medical practitioner) in the rural community, uses local remedies for his conjunctivitis and ends up in a condition where he cannot see anything beyond perceiving light. The membrane removal and treatment with topical antibiotic cured his infection, restoring complete recovery of vision. This incidence inspired the local village doctor to become an eye health educator. He was motivated to spread awareness about the ill effects of self-medication on eye health. He is also determined to bring all blind people and others who need eye care from his remote village to our centre.

CASE PRESENTATION

A young man aged 40 years practising medicine (local village doctor who typically treats common medical ailments such as cold, cough, fever, etc) in a remote rural area of southern India presented to the clinic with a complaint of decreased vision in both the eyes and having only light perception. On eliciting the patient's history, it was revealed

that 20 days previously he had had an episode of redness in both eyes, for which he had instilled ghee (clarified butter) as well as goat's milk in his eyes as a remedial measure. Also, he had instilled some antibiotic–steroid combination drops. Over the next 20 days, he experienced dimming of his vision, as if a curtain had been lowered in front of his eyes. This condition had exacerbated over the last 3 days.

On examination of both the eyes, severe lid oedema was noted along with a whitish membrane over the ocular surface with no distinction between the cornea and sclera. The membrane was firmly adherent to the lid margins ([figure 1A and B](#)). The edge of the membrane was lifted using a cotton bud and gradually peeled away from the underlying conjunctiva and cornea. It was a pseudo-membrane, that is, the membrane did not bleed on removal. The underlying conjunctiva was found to be chemosed and congested while the cornea showed superficial punctate keratitis with central epithelial defect. His vision improved immediately from light perception to 6/12 in both eyes. He was started on empirical topical antibiotic and lubricants and was asked to return after 1 week to our clinic. He was started on empirical antibacterial treatment on the clinical suspicion of bacterial conjunctivitis as the case was managed in a rural eye clinic with lack of access to microbiological

Figure 1 (A) Showing diffuse pseudomembrane covering ocular surface of right eye with elevated temporal edge of pseudomembrane with exposed underlying chemosed conjunctiva. (B) Showing diffuse pseudomembrane covering ocular surface of left eye with elevated temporal edge of pseudomembrane with exposed underlying chemosed conjunctiva.

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Figure 2 (A)Showing clear cornea and normal conjunctiva of right eye after resolved conjunctivitis. (B)Showing clear cornea and normal conjunctiva of left eye after resolved conjunctivitis.

lab services. At 1 week follow-up, his vision had improved to 6/6 in both eyes. Also, the conjunctival congestion and chemosis had significantly reduced. At the last follow-up at 2 weeks, his infection had resolved. The corneas in both his eyes were crystal clear with no evidence of conjunctivitis/lid infection (figure 2A and B).

GLOBAL HEALTH PROBLEM LIST

- ▶ Prevalent use of local (homemade) medications for eye ailments among rural population;
- ▶ Harmful consequences of using these so-called self medications resulting in blinding complications.

GLOBAL HEALTH PROBLEM ANALYSIS

It is common practice for rural populations to use local (home-made) medicines for almost all ailments, be it a minor disease or a serious life-threatening ailment. The lack of awareness of the eye disease per se, and of the consequences of using a local remedy, compounds the problem. Being one of the most sensitive and most neglected organs, the eye always needs special attention. Often, in rural practices, this special organ gets neglected.

In rural communities, various ingredients serve as local remedies to treat common eye ailments like red eye. These include mother's milk (colostrum), honey, plant alkaloids, ghee (clarified butter) and goat's milk. In some communities, it is common practice to put a spoonful of honey into the eyes immediately after birth. In yet other populations, tongue therapy (or using one's tongue to clean the patient's eye) has also been practised as a curative measure for a variety of ocular ailments. In a study by Regina *et al*, it was found that almost 40.5% people self-medicate before seeking specialised care for ocular emergencies.¹ The study also noted that this practice of self-medication is independent of one's educational level.¹ Similar findings have been reported by Mouhari *et al* in dermatology, too. Moreover, the practice is not just confined to a particular geographic or cultural region.²

Our case report will address one such occurrence in which a registered medical practitioner (RMP) based in a rural area used local remedies for his conjunctivitis. He later presented to us as a blinded man with visual acuity of only perception of light in both his eyes.

Being a local village doctor, he has better access and hold over the local populace, and now, following positive outcomes of eye treatment based on the principles of mainstream medicine, he wants to extend the same advantage to others who require help—particularly the blind and the visually impaired

in his locality—by bringing them to our secondary eye care centre for treatment and vision rehabilitation. He is now voluntarily spreading awareness among people and of his own accord discouraging the use of home-made remedies for different ailments, especially of the eyes.

Conjunctivitis is considered to be one of the most common and easily treatable ocular conditions. Topical antibiotics and clean and hygienic practices, such as frequent hand washing and not touching the eyes, are usually sufficient to treat the condition. However, there are conditions in which the formation of a true or pseudomembrane can obscure the visual axis, hampering vision. True membranes are necrotic conjunctiva with fibrinous exudate while pseudomembranes are discharge deposits and debris. Other home-made agents add on to the debris, being deposited over the ocular surface. Apart from getting deposited over the surface and hampering vision, these local medications, being corneal epitheliotoxic, can damage the ocular surface. Some may even penetrate the cornea and access the anterior chamber, threatening vision and causing permanent vision loss. In the case under discussion, ghee (or clarified butter) and goat's milk were instilled into the eyes to treat conjunctivitis, further worsening the symptoms and leading to vision loss. Typically in rural Indian communities, we

Patient's perspective

I am a local village doctor. I came to the eye hospital escorted by two people in view of my severe eye condition and blindness. Fortunately, I was immediately relieved of my symptoms and my vision was restored after treatment. I am now completely aware of the ill effects of using home remedies. I will spread awareness about these ill effects to all people in my village. I will also bring other blind people from my village for eye treatment.

Learning points

- ▶ To discourage the use of home-made remedies for eye ailments
- ▶ Diseases as mild as conjunctivitis can become potentially sight threatening with the use of home-made remedies and its prevention can be achieved by hygienic practices.
- ▶ A local village doctor, after experiencing the recovery of his vision with appropriate treatment, became a saviour of vision and an inspired eye health educator.

find that RMPs serve as medical missionaries, scouring remote rural locations for individuals who are sick or disabled, though personally they are likely to be limited by scarce resources in the form of standardised medical practice, knowledge of medications (valid and within the expiry date) and (para) medical skill sets. His own personal blinding experience awakened the RMP in the case under discussion to despair at his unscientific approach, and the easy solution he obtained just a few weeks later in a modern mainstream eye clinic triggered a thoughtful response in this individual. He has since taken it on himself to champion the importance of good health and medical awareness among his community and is motivated to serve in hard-to-reach and underserved areas, realising that as a generalist field practitioner he is pivotal to health education. He now aims to reach full potential as a socially aware medical practitioner and educator.

Contributors PKR, PS and SB have contributed equally in establishing diagnosis, acquisition of pictures and management of disease and frequent follow-up of patient.

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