

Homeopathy in acute otitis media in children: Treatment effect or spontaneous resolution?

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Abstract

Background: The conventional antibiotic treatment of acute otitis media (AOM) faces a number of problems, including antibiotic resistance. Homeopathy has been shown to be capable of treating AOM successfully. As AOM has a high rate of spontaneous resolution, a trial to prove any treatment-effect has to demonstrate very fast resolution of symptoms.

Purpose of this study was to find out how many children with AOM are relieved of pain within 12 hours after the beginning of homeopathic treatment, making additional measures unnecessary.

Methods: 230 children with AOM received a first individualized homeopathic medicine in the paediatric office. If pain-reduction was not sufficient after 6 hours, a second (different) homeopathic medicine was given. After further six hours, children who had not reached pain control were started on antibiotics.

Results: 39% of the patients achieved pain control after six hours, another 33% after 12 hours. This resolution rate is 2.4 times faster than in placebo controls. There were no complications observed in the study group, and compared to conventional treatment the approach was 14% cheaper.

Keywords: Acute otitis media, children, homeopathy, treatment effect, spontaneous resolution, complications.

Introduction

Acute otitis media is a very common illness in infants and toddlers. According to the Greater Boston Study¹ 80% of the three year old children have had one, and 40% of

them three or more episodes of AOM. Until a short time ago, the conventional standard treatment was a 10 day course of antibiotics, although it was known that many cases resolve spontaneously². In recent years it has been shown, that there may be no advantage of antibiotic treatment as compared to placebo.^{3,4} In addition, Friese *et al* demonstrated in a study involving 131 children, that homeopathic treatment led to a more favourable outcome than antibiotics⁵. The high rate of spontaneous resolution in AOM (60% of 'placebo-treated' children are free of pain within 24 hours, and 86% within 7 days, Figure 1) makes it very difficult to make a sound judgement on treatments, if the improvement takes close to the 24 hours. Thus, if we want to demonstrate what homeopathy really does in AOM, we need to know how many patients are considerably ameliorated in a time clearly shorter than 24 hours.

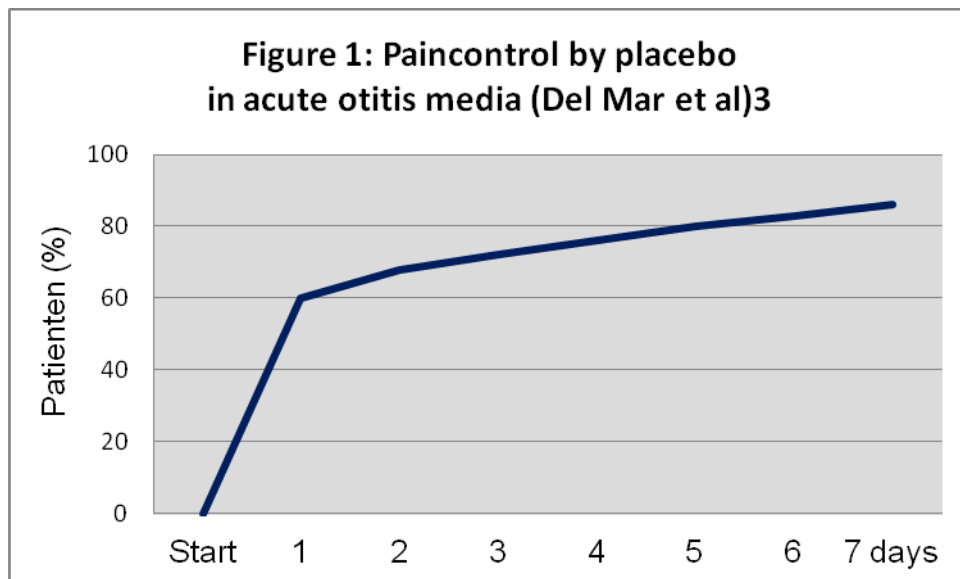


Figure 1: 60% of patients are painfree 24 hours after placebo, 72 % within three days, 86% within seven days.

In acute disease, a well chosen homeopathic remedy usually acts quickly, sometimes within minutes, or within a few hours. Therefore, if one succeeds to find the right remedy, it is not unrealistic to postulate a time limit of 6 hours for a considerable amelioration. The major problem in the homeopathic treatment of AOM is the usually very acute onset of symptoms. Because of the intolerable pain patients are brought to the doctor very quickly. This leaves little space for an accurate observation of the

changes the patient goes through, and thus often makes it necessary to choose a remedy on the basis of only a few symptoms.

The purpose of this trial was first to establish how many patients are sufficiently ameliorated with the first dose of a homeopathic medicine within 6 hours, and how many needed a second (different) remedy and reached amelioration within 12 hours, so that no further treatment (e.g. antibiotics) was necessary. Secondly whether the risk of complications with homeopathic treatment differs from that of antibiotic treatment. Also of further interest was the spectrum of homeopathic remedies and the cost effectiveness of homeopathy as compared to conventional treatment.

Methods

All patients between 0 and 16 years of age who presented with acute AOM in our paediatric practice were eligible. The diagnosis was based on the triad: acute ear pain, hearing loss and signs of inflammation on the eardrum (redness or cloudy discoloration, loss of normal landmarks, bulging). Within 8 months 230 patients were included in the study. The finding of the individual homeopathic remedies was performed by careful history taking and physical examination. We used the 'Therapeutische Taschenkartei für homöopathische Aerzte' B. von der Lieth⁶), a card index repertory based on Bogers Synoptic Key⁷ and Boennninghausen's Therapeutic Index⁸. The patients received the first medicine (potency 30C) immediately in the practice. If there was a considerable amelioration within the next 6 hours, no other medication was given. In case of persisting pain the parents could give a second (different) medicine after 6 hours. If the second dose did not resolve the problem within another 6 hours, they were allowed to begin antibiotic treatment.

Results

Time required for pain control

90 patients (39%) were free of pain within 6 hours and needed no other treatment, 76 (33%) received a second homeopathic remedy and had resolution of symptoms within 12 hours. The other 64 patients (28%) were started on antibiotics (Figure 2).

Figure 3 shows that after 12 hours 34% of the patients are painfree under placebo, 72% under homeopathy, i.e. in the first twelve hours of treatment homeopathy controls pain 2.1 times faster than placebo. Paincontrol in 72% of patients is

achieved with placebo in 72 hours, with homeopathy in twelve hours. Homeopathy is six faster in reaching the 72% paincontrol-level than placebo.

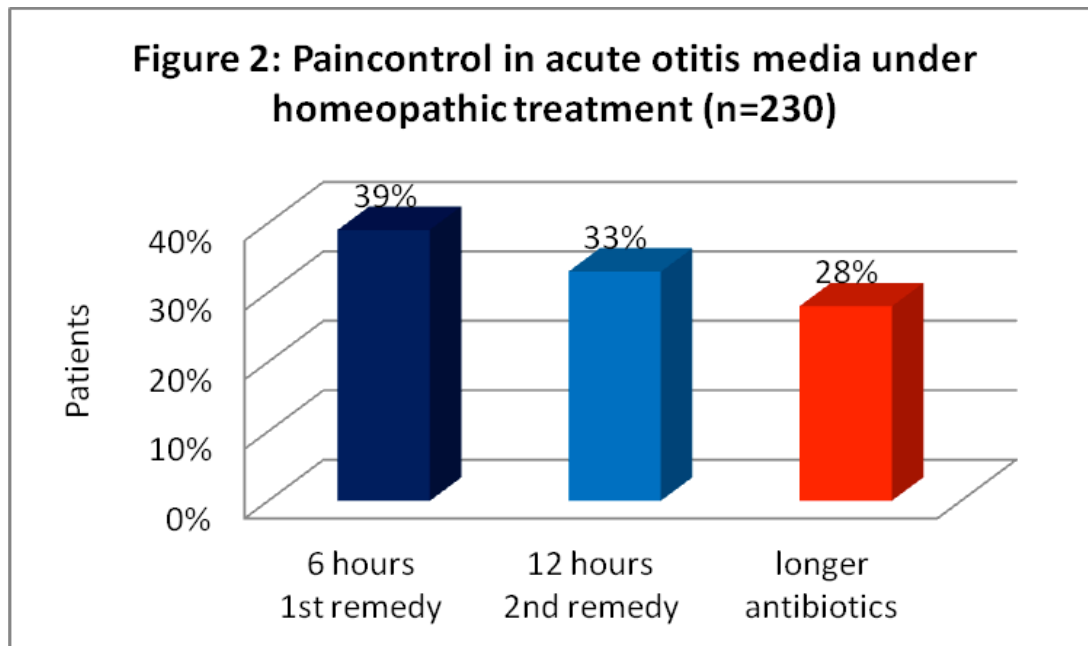


Figure 2: Pain control is achieved in 72% of AOM-patients within 12 hours

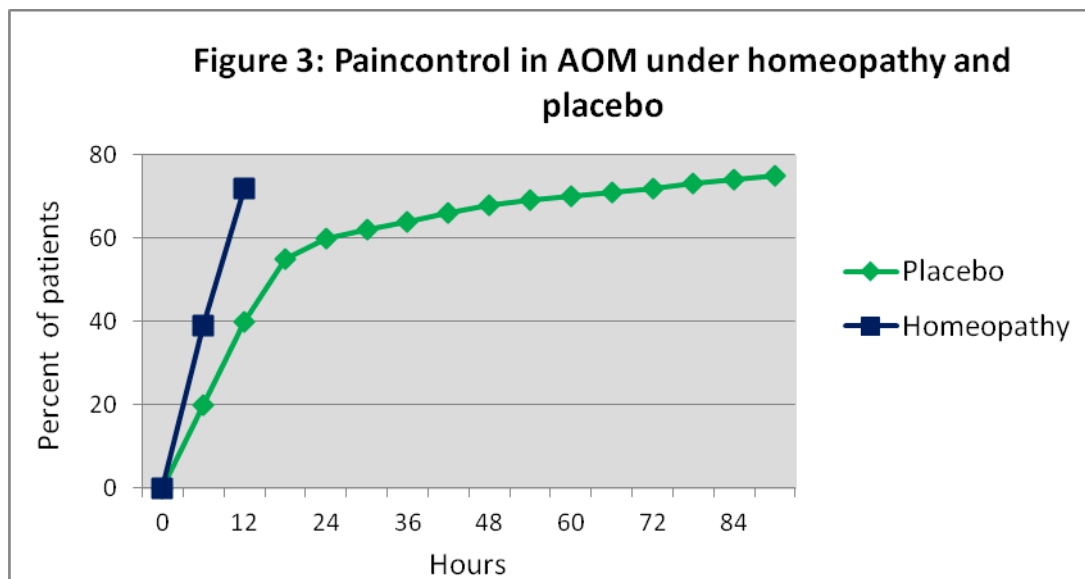


Figure 3: After 12 hours 34% of the patients are painfree under placebo, 72% under homeopathy, i.e. in the first twelve hours of treatment homeopathy controls pain 2.1 times faster than placebo. Paincontrol in 72% of patients is achieved with placebo in 72 hours, with homeopathy in twelve hours. Homeopathy is six faster in reaching the 72% paincontrol-level than placebo.

Complications

There were no complications in the 230 patients seen in this study. The method of treating AOM presented here has been used in our practice for 7 years. We estimate that approximately 2400 children with AOM have been treated in this manner. In these 7 years we have encountered three severe complications: one chronic central perforation of the eardrum, one cholesteatoma and one mastoiditis. Thus the incidence of complications can be estimated at a rate of about 0.125 %.

Homeopathic medicines

The remedies prescribed in 166 patients whose symptoms resolved within 12 hours are listed in Table 1. Table 2 lists the unsuccessful remedies (two per patient) in 64 patients who finally received antibiotics.

Table 1: Homeopathic medicines prescribed in 166 cases of AOM with resolution of pain within 12 hours

Pulsatilla	28	Bryonia	2
Belladonna	24	Ferrum-phos.	2
Sulphur	22	Hepar sulfur	2
Phosphorus	19	Kalium-carb.	2
Calcium carb.	14	Sepia	2
Lycopodium	10	Conium	1
China	6	Graphites	1
Arsenicum album	5	Ignatia	1
Chamomilla	5	Kalium-mur.	1
Rhus tox.	5	Lachesis	1
Mercurius solubilis	4	Natrum-mur.	1

Nux vomica	3	Phos-ac.	1
Silicea	3	Veratrum	1

Table 2: Unsuccessful homeopathic remedies in 64 patients with AOM who finally received antibiotics

Belladonna	23	Hepar sulfur	3
Pulsatilla	16	Ferrum phos.	3
Sulfur	15	Sepia	2
Phosphor	14	Arsenicum alb.	2
Calcium carb.	12	Bryonia	2
Mercurius sol.	7	Nitricum acid.	2
Rhus tox.	6	China	2
Kalium chlor.	5	Nux vom.	2
Lycopodium	4	Lachesis	1
Chamomilla	3	Veratrum	1
Silicea	3		

Treatment costs

Conventional and homeopathic treatment both need a first and a second appointment in the medical practice, combined cost 55.50 CHF. The finding of the homeopathic remedy requires 5 to 10 minutes more time than conventional medicine, an estimated average cost of 20 CHF; two doses of a homeopathic remedy reimbursed at 4.60 CHF each. The typical cost of the antibiotic (e.g. Cephoral, Merck 100 ml) is 46.80 CHF, and a decongestant nasal spray (e.g. Vibrocil, Novartis) 7.20 CHF. For the homeopathic treatment, including the 28% of patients who were also prescribed antibiotics, total cost is 94.60 CHF, while the conventional treatment costs 109.50 CHF. Conventional treatment is thus 14% more expensive.

Discussion

Friese and coworkers have shown that homeopathy in AOM leads to a faster relief of pain and a lower relapse-rate than antibiotic-treatment.⁵ This study demonstrates that with homeopathy 72% of the patients have paincontrol within 12 hours, compared to

34% with placebo, i.e. early improvement with homeopathy is 2.1 times faster than with placebo. 72% of the patients under homeopathy are painfree within 12 hours, while placebo needs 72 hours to reach this level. Homeopathy is thus 6 times faster than placebo. In our cohort 28% of the patients needed an antibiotic. This study was performed when the treatment standard for AOM was antibiotics in all patients. In the meantime, because of sharply increasing antibiotic resistance, conventional medicine has become more cautious on antibiotic prescribing. In a debate at the 9th European Congress of Clinical Microbiology in Berlin, March 1999, entitled '*Otitis media: Is antibiotic treatment indicated?*' the conclusion was: yes, but not immediately and not necessarily in all patients.⁹ Palliative treatment would be an alternative to antibiotics, but has a much higher risk of complications.^{10,11} We consider it essential to control the pain in AOM as quickly as possible and to avoid chronic complications, a goal that has been achieved in this study.

The comparison of successful and unsuccessful homeopathic remedies reveals the following: The number of different medicaments used in both groups is approximately equal. In the group who finally received antibiotics bell., merc-s., rhus-t., kal-m., sil., fer-p. and hep. were used more often than in successful treatment, while puls., lyc., chin. and ars. had a lower prevalence. Wrong prescription for whatever reason seems to be the only possible explanation for this difference.

Homeopathy appears to be cost-effective in this comparison with conventional medicine. Friese showed that in addition, relapses after homeopathic treatment are less frequent than after antibiotics, which increases the cost effectiveness of our method beyond the immediate comparison.⁵

Our current work in the paediatric setting focuses on an approach to AOM that should lead to a further reduction in use of antibiotics, without making children suffer unnecessarily. This goal can possibly be reached by introducing a second homeopathic reserve medication (after 12 hours), combined with analgesics given at this point.

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