

March 22, 2016

Editorial Board

*BMC Complementary and Alternative Medicine*

Dear Members of the Editorial Board,

Please find enclosed the manuscript of the paper entitled “An effective traditional remedy against common ear infection bacteria” that we would like to submit for publication in BMC Complementary and Alternative Medicine.

There are many short- and long-term health problems associated with antibiotic overuse, including disruption of gut microbiota. Early-life use of antibiotics has been linked to major adult chronic illnesses including obesity, diabetes, asthma, and allergies. Otitis media and otitis externa are the most common causes for antibiotic prescriptions in children in the USA, despite the fact that the American Academy of Pediatrics now recommends a watch-and-wait policy. Topical antibiotic treatment would be expected to cause less disruption to the gut microbiota than oral antibiotics, and therefore fewer health issues. In this paper, we show that a traditional Indian remedy for treating ear infections, garlic-infused mustard oil, strongly inhibits the growth of *Streptococcus pneumoniae* and *Haemophilus influenzae*. This demonstrates that the traditional remedy could potentially be used at home during the watch-and-wait period as an alternative treatment with less profound impacts on normal gut and immune development. Any change in clinical practice that would reduce antibiotic usage in infants is expected to have benefits to society and the national healthcare burden, potentially diminishing emergence of antibiotic resistance and lowering incidence of adult diseases linked to childhood antibiotics usage.

We declare that all authors have substantially contributed to this work. The manuscript, as submitted or its essence in another version, is not under consideration for publication elsewhere, and will not be published elsewhere while under consideration by BMC Complementary and Alternative Medicine. We declare that the authors have no commercial associations or sources of support that might pose a conflict of interest. I certify that this manuscript has been approved by all co-authors and all authors endorse the data and conclusions.

Sincerely,



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