

Vaporub — An economical alternate

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Vaporub is often used as an inhalant/applied ointment, to mitigate symptoms of upper respiratory tract infections¹ and minor muscle and joint aches. There are few more uses of vaporub, for example it can also be used as a topical analgesic in case of any insect bite, can work as an insect repellent, relieves headache and help reduce bruises and swellings.

Vaporub contains several substances, which are either plant substances or their extracts. Although it includes various oils like eucalyptus oil, nutmeg oil, and turpentine, two of the most important elements that help in curing pruritus and general anaesthesia are menthol and camphor.

Pruritus or histamine-induced itching can be relieved by various methods, but one of the very prominent ways is by the application of cold sensation to the affected region. Specific substances such as Menthol and Camphor are higher in percentage that is 2.6% and 4.73% respectively,¹ they attenuate the excitability of nerve membranes and of the specific itch mediating C-fibers and A-fibers.² Both substances act by attaching to the transient receptor potential (TRP) receptor, but the main mechanism of action by which topical menthol reduces pruritus is by attaching onto the cold receptor TRPM8 which then goes and reaches the A-delta fibers and hence giving a cooling sensation.² While camphor attaches onto the warm receptor TRPV3.³

Furthermore, menthol also helps in providing general anaesthesia by being a positive modulator of GABA type a receptor. GABA receptors are major ionotropic receptors for fast-acting neurological-inhibition. Multiple studies have shown that menthol may share sites for the modulatory action of the GABA type a receptors along

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with propofol, which is an intravenously induced anaesthetic, therefore, menthol is a moderately potent anaesthetic inducing general anaesthesia.⁴

When used as a topical agent, Vaporub cause blood vessels to dilate which increases the blood flow and causes loss of heat which helps relieve symptoms of headache. Increased blood flow also clears out the inflammatory products helping reduce itch and inflammation.⁵

Vaporub is a better substitute for topical ointments since it has milder side-effects, inexpensive, easily available over the counter, and is a rapidly acting analgesic. There are many hidden advantages and usages of vaporub which are not highlighted and not known to many nor published, hence more studies and clinical trials incorporating Vaporub need to be conducted to explore further applications. We recommend that an effort be put into increasing awareness regarding vaporub and its use by local medical institutes.

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