



Review on Antibacterial, Antiviral, and Antifungal Properties of Natural Diapers and its Effect on Dermatitis

¹Deepali Mor, ²Sahas Bansal, ³M. Ramachandran, ⁴Pramod Raichurkar

¹SPTM, SVKM's NMIMS University, Dhule, Maharashtra, India
^{2,3,4}MPSTME, SVKM'S NMIMS University, Dhule, Maharashtra, India

Abstract: Diapers are the underpants worn by infants until they are potty trained, women during menses (sanitary pads), and adults in severe health conditions. This article deals with the diapers worn by infants. Diapers are multilayer invention containing absorbent layer, antimicrobial agents, protective sheets, and fasteners to fit the diaper on the infant's body. They are prepared from either naturally occurring fibers like cotton, wool, bamboo, jute, linen, etc or synthetically prepared fibers such as nonwoven polypropylene, polyethylene, polyester, nylon, etc. Diapers are of two types; the cloth diapers and the disposable diapers of which cloth diapers are more recommended. The very common problems faced by the use of diapers are diaper rashes, dermatitis. It is caused due to the moistened topsheet of diaper after the excretion of waste products. The presence of various disease causing bacteria *Escherichia coli*, like *Staphylococcus aureus*, *Klebsiella Pneumonia* and fungi like *Candidia albicans* was observed. In the present article, we are discussing about the diseases caused by the above-mentioned microorganisms and various remedies such as Silver nanoparticles, Curcumin (*Curcuma longa* or *Turmeric*), Zinc Oxide and Neem (*Azadirachta indica*) that shows antibacterial, antiviral and antifungal action to prevent these diaper rashes. Later, we also added a note on the environmental aspects regarding the use of diapers and its affect on the environment after it's disposable.

Deepali Mor *et al* /Int.J. PharmTech Res. 2015,8(10),pp 40-46.
