Blow of hot air proves fatal for lice: Study

In an effective non-chemical treatment to fight head lice, researchers report a single 30 minute exposure to hot air has the potential to eradicate head lice completely.

In a recent study conducted by the University of Utah’s Department of Biology, researchers report that treatment with dryer like device, named 'Louse Buster' resulted in 80% mortality of hatched lice and 98% mortality of eggs.

Considered more effective than the presently available treatments to fight head lice, the new technique stops head lice infestation, apparently by drying the parasitic insect and its eggs to death.

Lice are tiny, wingless, parasitic insects that live among human hair and feed on extremely small amounts of blood drawn from the scalp.

Though not dangerous because of their inability to spread disease, they are contagious and spread easily through close personal contact and sharing of personal belongings.

As their bites result in itchy scalps, persistent scratching may lead to skin irritation and infection. Over a million children are infested with head lice annually in the United States, which in turn is responsible for tens of millions of lost school days.

Under the study, researchers examined the effectiveness of 6 different hot air techniques to kill lice and nits. Each technique delivered hot air to the scalp in a different way.

Tested over 169 individuals, all 6 methods resulted in egg mortality rate of over 88%, but variable success rates were seen in killing hatched lice.

Operated at a comfortable temperature, slightly cooler than a standard blow-dryer, the LouseBuster was the most effective method in killing lice and its eggs. The method resulted in 80% mortality of hatched lice and 98% mortality of eggs with treatment showing no adverse effects.

On a follow up examination one week after treatment, the results showed virtually 100 percent cure in the entire sample base.

Though, lice have evolved resistance to many existing chemical and non-chemical therapies, the hot air blow is an effective and safe treatment and one to which lice are unlikely to evolve resistance.

The device, developed by Larada Sciences, is in its early stages of commercial development. The device will go through ‘fairly rigorous clinical trials’ before it applies for approval as a medical device to the Food and Drug Administration.

If approved, the medical device will hit U.S. markets within two years. Primarily to be used in schools and clinics, the basic machine device is likely to cost somewhere between $1000 and $2000.