**Dangers of Water Pipes (Hookah)**

Hookahs are water pipes that involves a small group that smoke flavored tobacco. In recent years hookah has become popular amongst younger adults. The CDC’s National Youth Tobacco Survey found that from 2013 to 2014 that hookah smoking doubled in middle and high schoolers. The Monitoring the Future survey found that in 2014, about 23% of 12th grade students in the United States had used hookahs in the past year, up from 17% in 2010. Hookah smoking, similar to cigarettes, carry the same dangers in regards to cancer and nicotine addiction.

**Data Synthesis**: Based on data extracted from three databases-PubMed, MEDLINE, EMBASE, it has been made clear that water pipe smoking (WPS) leads to increased heart rate, blood pressure, impaired pulmonary function and carbon monoxide intoxication. Complications as a result of long-term use can lead to chronic bronchitis, emphysema and coronary artery disease. Contrary to what is believed, WPS has shown to affect multiple organs, especially the respiratory and cardiovascular systems.

**Effects on the cardiovascular system**

According to experiments conducted in the Middle East, Europe and the U.S. measured healthy individuals before and after WPS sessions that could last for 30-60 min. They found that there was significant increases in HR. Smoking one cigarette for 5 minutes and smoking one WP for 45 min were associated with a similar increase in the nicotine level and a slightly smaller increase in HR. The nicotine level and HR peaked earlier at 5-10 min after cigarette smoking but were higher at 30-45 min after WPS.

**Long-term Cardiovascular Function**

According to multiple studies done by Iran, Banglesdesh, Lebanon, Qatar, and Egypt where WPS is popular, there shows to be association of WPS with increased odds of CAD. A community-base study from Jordan evaluated the association of WPS with increased with hypertension. Studies have shown that women that have smoked WP have a 2.81 times the risk of death from any cause compared to non-WP smokers.

A recent study found a weak association between exclusive long-term WPS and increased BP and HR. Flow mediated dilation was lowest in healthy individuals compared to either a cigarette or WPS-related products. This suggests endothelial destruction has taken place.

Effects on the respiratory system

WPS has acute and long-term efforts on the respiratory system similar to the cardiovascular system. It can lead to chronic bronchitis, emphysema and exacerbation of asthma are a few pulmonary manifestations of WPS. There was a six-fold increase in lung cancer in previous Lebanese WP smokers and in a group of current Indian WP smokers. A significant association between WPS and gastric cancer was also observed in a case-control study.

**Educating Youth about Dangers**

Education of health professionals, regulators, and the public at large is needed about the risks of hookah smoking. Hookah smoking should also be subject to the same regulations as other tobacco products. These are just a few measures for keeping people educated about hookah smoking and the dangers associated with it.

References

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