Shisha Has Deleterious Effects on the Oral Health of Many!

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A waterpipe (WPS) (Shisha) is a nicotine-delivery device in which tobacco smoke is passed through water before being inhaled. Smoking a cigarette has been a traditional practice in Middle Eastern societies for hundreds of years. As is well known, the tar involved in a single inhalation of waterpipe smoking is about equivalent to that in five cigarettes. A waterpipe session can be equivalent to smoking about 100-200 cigarettes. The use of waterpipes is increasing around the world, especially among young people and women. It has become an endemic global phenomenon. WPS have a false sense of safety because waterpipes are used casually in social gatherings and smoking them is a recreational activity both indoors and outdoors. It is estimated that 70% of WPS believe waterpipes to be a safe alternative to cigarette smoking. Raj et al. concluded that the mistakes of parents and the belief of the young that smoking WPS is not as dangerous as smoking cigarettes have enabled WPS to take the practice lightly, contributing to its growth and popularity in the Middle East.

The charcoal used to burn waterpipe tobacco includes carbon monoxide, metals and cancer-causing chemicals, which increases the health risks of WPS. Currently, most discussion regarding water pipes is about the risk of oral cancer, periodontal disease and peri-implantitis. El-Hakim et al. and Ramóa et al. noted that waterpipe smoke contains a juicy compound that causes chronic irritation, increasing the vulnerability to developing premalignant lesions and oral and oesophageal cancers. It has also been reported that the effects of waterpipe smoking were significantly associated with increased DNA damage in users’ lymphocytes and buccal mucosa cells. In addition, there is a multitude of research on the oral and other health risks faced by WPS. Soule et al. reported that bacteria, viruses and fungi are passed among users who share the mouthpiece of a pipe. The potential existence of mycobacteria in the waterpipe tube can contaminate users. El-Barraway et al. found that smokers who have gingival infections and who share a mouthpiece can spread Helicobacter pylori, the bacteria that cause stomach ulcers. Habib et al. found that the Hepatitis C virus could be transmitted by infected drops of blood that cling to waterpipe mouthpieces. Szyper-Kravitz et al. found that cultures grown from the humid tobacco from waterpipes were contaminated with spores of Aspergillus, a mold fungus that causes pneumonia. Other researchers have found increased incidence of candida infections among cigarette and waterpipe smokers and users of electronic cigarettes.

Reports of oral health risks abound. Al-Belasy found compromised periodontal health in WPS compared to non-smokers. Natto et al. reported that the relative risk of periodontal disease is increased 5.1-fold in WPS compared to non-smokers. The periodontal pathogens called ‘black-pigmented bacteria’ (P. gingivalis and P. intermedia) had higher incidences among WPS. In addition, they found changes in oral microflora that can be particularly pathogenic to humans. Mombelli et al. found increased incidence of peri-implantitis, peri-implant bone loss and implant failure in dental patients who were WPS. AlQahtani et al. found that tobacco smokers higher levels of inflammatory cytokines may increase the process of peri-implant inflammation, which plays an important role in the progression of peri-implant tissue damage. In addition, these researchers found that waterpipe smoking was associated with the most-common complications following tooth extraction, including alveolar osteitis (dry socket).

Given the results of the studies above, we conclude that waterpipe smoking has detrimental effects on the health and life of many. Therefore, public awareness regarding these effects is needed. However, waterpipe smoke is an extremely addictive substance, and quitting a smoking habit is never easy. We must find an early, effective way to reduce the spread of waterpipe use. In the meantime, recommending smoking cessation is an important part of planning dental treatment and such a recommendation can be an important step toward improving overall health.

REFERENCES