

CURRENT METHODS OF PREVENTION OF DENTAL DISEASES

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Abstract: Currently, a huge number of different models of irrigators have been developed. This allows for proper cleaning of the gingival system painlessly, similar to dental floss. An irrigator is necessary for maintaining oral hygiene, just like a toothbrush. JETPIK irrigators are effective and modern devices for oral care. The multifunctional irrigator combines the cleaning effects of water, air and dental floss.

Keywords: irrigator, hygiene, health, oral care.

INTRODUCTION

Currently, the prevalence of periodontal and dental hard tissue diseases remains high. The problem of preventing these diseases has been acute for many decades. This becomes especially relevant during the appearance of various orthodontic and orthopedic fixed structures in the oral cavity, which lead to the development of periodontal tissue pathology in 92% of cases. Due to the constant presence of a foreign irritant in the form of orthodontic equipment, individual oral hygiene is difficult. The reason for the development of inflammatory diseases is the difficulty of cleaning hard-to-reach interdental spaces, the cervical surface of the teeth, the formation of a large amount of plaque and the formation of a microbial biofilm on the tooth surface.

MATERIALS AND METHODS

Therefore, oral hygiene should be comprehensive [1], including the use of additional hygiene products: floss and an oral irrigator. The use of floss does not always give the desired effect when the teeth are closely spaced, and in the presence of orthopedic and orthodontic structures, their use is impossible [2]. In this case, an additional device is needed that will remove plaque in places inaccessible to a toothbrush. An irrigator is an oral care product. The first irrigator appeared in 1955. It was developed by engineer John Mattingly and dentist Gerard Mayor. In 1962, they received a patent for their invention. In 1967, the first models of the WATERPIK irrigator went on sale.

RESULTS AND DISCUSSION

If there are implants in the oral cavity, the need to maintain good hygiene increases several times. And in this case, the irrigator is in first place among the recommendations [3]. In case of exacerbation of chronic gingivitis and periodontitis, antiseptics should be used as irrigation solutions [4]. Currently, a huge number of irrigator models have been developed by various manufacturers. This allows for proper cleaning of the gingival system painlessly, similar to dental floss. The design of modern irrigators includes a water tank (which can be filled with antiseptic solutions as recommended by a dentist), an irrigation nozzle, and a motor for creating water jet pressure. Almost all modern irrigators have a water jet pressure switch sensor in the tip. The patient, on the recommendation of the doctor, adjusts the water

jet pressure switching mode from minimum to maximum depending on the condition of the periodontium. The liquid supplied under pressure thoroughly cleans from food debris and plaque, massages the gums, and improves blood circulation.

Some manufacturers strive to improve irrigators by adding additional functions - for example, a pulsed water jet with a frequency of 1,200-1,800 pulses per minute makes them comparable to sound vibrations, which also improves the efficiency of surface cleaning (WaterPik, Shenzhen Fortunecome Technology, Achepower Electronic, AQUAJET). Also, many irrigators, along with the pulse function, have microbubble technology, in which the water jet is mixed with air bubbles. With such mixing, the water jet with air bubbles, hitting the surface of the teeth and mucous membranes, forms microhydraulic shocks, which contributes to excellent cleaning of the surface of the teeth, braces, crowns (Braun Oral-B Professional, Donfel Compact, Panasonic).

When using the irrigator, the gums are gently massaged, the vessel walls are strengthened, blood circulation and tissue metabolism are improved [2]. The jet power range has six levels and is regulated by a switch on the handle. This allows each patient to individually select the optimal jet power values and makes the procedure as comfortable as possible. The device is convenient to use when traveling, as it comes with a charger with an AC adapter and a USB adapter. The JETPIK irrigator can be used by everyone, it is suitable for absolutely everyone: first of all, patients with orthopedic (crowns and implants) and orthodontic structures (braces), as well as in the presence of diseases of the oral mucosa (gingivitis, periodontitis). The innovative JETPIK JP200 system includes an electric and sonic brush attachment and a tongue cleaner. The sonic toothbrush head is made of high-quality durable nylon. Its bristles vibrate in the sound range of 20,000 oscillations per minute. This helps to effectively clean the surface of the teeth from bacterial and pigment plaque. The tongue cleaner has an adapted optimal shape that allows you to easily clean the entire surface of the tongue without causing a gag reflex. Comfortably and safely removes plaque from the tongue, which is often the source of bad breath. The Ultra sets include a UV sanitizer, which is designed to disinfect JETPIK heads and toothbrushes using UV rays.

CONCLUSION

Before using the irrigator, clean your teeth with a toothbrush and adjust the water stream. The nozzle must be placed at a right angle to the tooth. Supplying liquid under high pressure can damage the integrity of the oral mucosa. The liquid in the irrigator must be at room temperature. In the presence of inflammatory diseases in the oral cavity, in order to achieve maximum effect, as recommended by a doctor, it is recommended to pour solutions with antibacterial and anti-inflammatory properties into the irrigator [4]. Currently, the positive therapeutic effect of the irrigator on the condition of the oral tissues in various pathological conditions and for preventive purposes has been studied and proven. Indications for the use of the irrigator are: prevention of periodontal diseases and caries; halitosis; cleaning hard-to-reach areas; the presence of fixed dentures, crowns, braces or implants in the mouth; reduced immunity; pregnancy; smoking. In case of exacerbation of periodontal diseases, a consultation with a dentist is necessary to select the optimal mode of water jet supply, its power, pulse or bubble mode.

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