THE EFFECT OF SWITCHING FROM SMOKING TO OTHER ALTERNATIVE OF NON-COMBUSTIBLE TOBACCO PRODUCTS ON ORAL HEALTH
Smoking is a problem of public health worldwide.
- Tobacco kills up to half of its users. It is the cause of the death rate for nearly 6 million people each year (one death per 6 seconds).
- WHO estimates mortality growth in about eight million people in 2030.
Viceroy's Filters

As your Dentist, I would recommend Viceroy's.
THE EFFECT OF SMOKING ON ORAL HEALTH

- It varies from benign changes such as dental pigments to precancerous lesions and carcinomas.
- Smoking is a risk factor for candidosis by reducing local immunity
- Odontal diseases:
  - Dental caries, teeth’ and filling’s colorations
  - Periodontal disease
The risk is 5-10 times higher in smokers than non-smokers The effect is more pronounced in men than women
Bone loss is 7 times higher in smokers compared to non-smokers
- The results of periodontal treatment are less favorable for smokers
- The use of tobacco affects the surface of the epithelium and induces changes. These varies from simple pigments to epithelial thickening + keratosis.
- The tongue and its ventral face are exposed for a long time to stagnant substances in the saliva.
- The first contact with heat and emitted substances is mostly affecting the palatal mucosa.
Oral mucosal diseases associated with smoking

- Hairy black tongue
- Nicotinic stomatitis
- Oral candidosis
- Reduced taste and olfactory sensitivity
- Halitosis
- Oral leucoplasia (associated with smoking)
- Oral carcinoma
I recruited 20 subjects who have expressed their interest on quitting smoking. They have answered a brief questionnaire about what kind of alternative methods they can use for quitting. I explained to all my patients the advantages and disadvantages of using several products (pills, snus, heat-not burn, vape, others). Most of the patients have made their choices in using heat-not-burn (IQOS- very popular in Romania).

The subjects were divided in 2 groups. 15 ( 6 female, 9 male) will switch to IQOS and 5( 2 female, 3 male) subjects as a control group. Inclusion criteria- adults, regular smokers(over 20 cig/day), who smoked for more than 5 years.
Exclusion criteria- subjects who had a recent history of periodontal therapy (6 months) chronic users of non-steroidal anti-inflammatory drugs or steroid medication, subjects with chronic systemic disease, subjects who required prophylactic antibiotics, prior to dental treatment.

All subjects have signed documents: data protection, patient consent to medical research, patient consent to taking oral pictures in medical unit, informal consent at the initial visit. In the same time, they answered to all questions meaning the subjective symptoms in smoking (bleeding, teeth coloration, dental calculus, high plaque deposits, gingivitis, oral candidosis). The research will study the effect of switching from smoking to heat-not-burn products on oral health of 15 subjects comparing to 5 subjects who continued smoking.
Clinical trial contains the following:
- subjects selection
- diagnosis
- treatments (scaling, cleaning, root planning, oral hygiene promotion)
- initial status - (oral photography)
- after cleaning and scaling oral photography.
- smoking cessation counseling (every 3 months)
- reevaluation at 6 months and 9 months (oral photography and questionnaire)
Smoker- first visit before cleaning

Smoker- first visit after cleaning

After 6 months (switch)
Smoker- first visit Before cleaning

After 6 months (switch)

Smoker-first visit after cleaning
Smoker- first visit Before cleaning

Cigarette smoker after 6 months

Smoker-first visit After cleaning
Smoker -6 months after switch

Cigarette smoker after 6 months
Cigarette smoker after 6 months

Smoker -6 months after switching to iQOS
Initial visit

After 9 months visit (non-smoker)
Initial visit

After 9 months visit (smoker)
After 9 months visit (switch)

Initial visit
Initial visit

After 9 months visit (switch)
Initial visit

After 9 months visit (switch)
After 9 months

Non smoker

Smoker

Switch
By examining and comparing the density, amount and colour of the calculus from a smoker after 9 months and a from a smoker who switched (after 9 months), I can say from a dentist point of view that the amount of calculus was less, the colour was lighter and because of lower density, easier to remove.

- Usually, for a smoker, the cleaning, scaling and professional hygiene is painful, takes much more time than for a non-smoking patient; the oral mucosa and gingiva is more or less damaged (depending on the amount of calculus).

- To a smoker who had switched to IQOS, after 6 or 9 months of using it, the cleaning can be performed only using a rotative brush, so it is not painfull, the teeth are much more protected from the side effects of scaling. The patients are happy and they express their thanks by telling all their friends and families about this improvement in oral health.
This project raised public awareness due to the multi-tiered communication of the benefits of switching, as follows:

- The doctors involved communicated to their peer-group the results of the experiment.
- The patients communicated to their network including family and acquaintance, the subjective improvement in oral health (including the absence of halitosis comparing with the cigarettes smoking period and the easiest access to dental treatment).