

“Does marijuana be considered a risk factor for Oral Cancer? A significant Case report”

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Abstract

Oral cancers represent about the 3% of all the malignancies in people and the 90% of those are squamous cell carcinomas. The strong association between oral cancer and the use of tobacco and alcohol were well established. There are also some suspects about a correlation between drugs smoke and oral cancer.

We report 5 cases of young people (3 males, 2 females) developing an erythroplastic lesion on a history of drug smoke.

Keywords

Marijuana, oral cancer, drug smoke, erythroplastic lesion

Introduction

Oral cancers represent the 3% of all malignancies, and the 90% of those are represented by squamous cell carcinomas.

They are not difficult to diagnose when have become symptomatic; an history of pain, bleeding, ulceration, otalgia and/or dysphagia, related with the presence of a mass, lead directly to the primary lesions (usually at stage II and associated with cervical lymphadenopathy).

The five-years survival rate for all stages is poor with a high morbidity.

So it becomes important to make an early diagnosis of the oral cancer when they are asymptomatic. Carcinomas of the oral cavity, and of the oropharynx, are suited to early diagnosis because the sites of involvement are easily accessible with common and easy techniques and also because the pathology is strictly related with specific risk factors.

In this work we report 5 cases of patients that were marijuana smokers and that underwent dental treatment in our private clinic in the last 3 years.

Case Report

Case 1:

C.M. is a young 27 years old male that came to our attention for the presence of 2 decays and for a low degree periodontal disease.

He has a good social position, works in a bank and has a good oral health. He referred to be a social drinker (2-3 glass of beers a week), to have no history of tobacco smoking but to have a history of marijuana smoker (15-20 times a month).

During the oral examination we reported only 2 decays, 3 filled teeth and 1 missed teeth (extracted when he was 16 years old for a decay), and a low degree of periodontal disease. Thanks to our standard of examination we reported an area of erythroplasia at the level of the retromolar trigone.

The erythroplastic lesion we reported was asymptomatic, predominantly red, inflammatory with atrophic alteration, less than 1 cm and with granular aspect. (1,2,3,4)

After the examination we treated the patient for the decays and administrated him with oral rinses (clorhexidyne 0,2%) and decided to check the patient again after 14 days to evaluate the erythroplastic lesion one time more. After 2 weeks the lesion do not showed any step of remission,

so we decided to evaluate the mucosal alteration using an oral rinse with toluidine blue which clinically stains malignant lesions and not a normal mucosa. (5-6)

The response was positive although the lesion seemed to be innocuous.

We immediately proceeded to the hospitalisation of the patient for the specific treatment.

Case 2: F.T is a 32 years old male that came to our attention for the presence of 3 decays and for a middle degree periodontal disease.

He has a good social position, junior manager in a factory and has a good oral health. He referred to be a social drinker (3-5 glass of beers a week), to have history of tobacco smoking (20-25 cigarettes /week) and to have a history of marijuana smoker (6-8 times a month).

During the oral examination we reported only 3 decays, 5 filled teeth, no missed teeth, and a middle degree of periodontal disease. Thanks to our standard of examination we reported an area of erythroplasia at the level of the ventral tongue. The erythroplastic lesion we reported was asymptomatic, predominantly red, inflammatory with atrophic alteration, less then 1,5 cm and with granular aspect. (1,2,3,4).

After the examination we treated the patient for the decays and administrated him with oral rinses (clorhexidyne 0,2%) and decided to check the patient again after 14 days to evaluate the erythroplastic lesion one time more. After 2 weeks the lesion showed some steps of remission; to be sure we decided to evaluate the mucosal alteration using an oral rinse with toluidine blue which clinically stains malignant lesions and not a normal mucosa. (5-6)

The response was negative

We evaluated the patient again after 2-4-6-10 weeks. After 3 months the lesion disappeared.

Case 3: M. D.P. is a 22 years old female that came to our attention for a painful decay on 2.4. She has a good social position, she is a student of the School of Medicine and referres to be a light smoker (3-4 cigarettes/die) and to have an history of marijuana smoker (7-10 times a month). During the oral examination we reported only 1 decay, 7 filled teeth, no missed teeth, and a low degree of periodontal disease. Thanks to our standard of examination we reported an area of erythroplasia at the level of the Buccal mucosa. The erythroplastic lesion we reported was asymptomatic, predominantly red, inflammatory with atrophic alteration, less then 1,0 cm and with granular aspect. (1,2,3,4).

After the examination we treated the patient for the decays and administrated her with oral rinses (clorhexidyne 0,2%) and decided to check the patient again after 14 days to evaluate the erythroplastic lesion one time more. After 2 weeks the lesion showed some steps of remission; to be sure we decided to evaluate the mucosal alteration using an oral rinse with toluidine blue which clinically stains malignant lesions and not a normal mucosa. (5-6)

The response was negative

We evaluated the patient again after 2-4-6-10-15 weeks. After 4 months the lesion disappeared.

Case 4: D.M. is a 27 years old female that came to our attention for a prosthetic treatment on 1.4-1.5-1.6. She has a good social position, she is a nurse I a private hospital and referres to be a light smoker (5-8 cigarettes/die) and to have an history of marijuana smoker (8-9 times a month). During the oral examination we reported only 2 decays , 8 filled teeth, 1 missed teeth, and a low degree of periodontal disease. Thanks to our standard of examination we reported an area of erythroplasia at the level of the retromolar trigone. The erythroplastic lesion we reported was asymptomatic, predominantly red, inflammatory with atrophic alteration, less then 1,5 cm and with granular aspect. (1,2,3,4).

After the examination we treated the patient for the prosthetics and administrated her with oral rinses (clorhexidyne 0,2%) and decided to check the patient again after 14 days to evaluate the erythroplastic lesion one time more. After 2 weeks the lesion do not showed some steps of

remission; to be sure we decided to evaluate the mucosal alteration using an oral rinse with toluidine blue which clinically stains malignant lesions and not a normal mucosa. (5-6)
The response was positive although the lesion seemed to be innocuous.
We immediately proceeded to the hospitalisation of the patient for the specific treatment.

Case 5: P.P is a 35 years old male that came to our attention for a prosthetic treatment on 3.5-3.6-3.7. He has a good social position, he is an architect and refers to be a light smoker (10-15 cigarettes/die) and to have an history of marijuana smoker (10-12 times a month). During the oral examination we reported only 3 decays , 6 filled teeth, 1 missed teeth, and a low degree of periodontal disease. Thanks to our standard of examination we reported an area of erythroplasia at the level of the lateral tongue. The erythroplastic lesion we reported was asymptomatic, predominantly red, inflammatory with atrophic alteration, less then 1,0 cm and with granular aspect. (1,2,3,4).

After the examination we treated the patient for the prosthetics and administrated him with oral rinses (clorhexidyne 0,2%) and decided to check the patient again after 14 days to evaluate the erythroplastic lesion one time more. After 2 weeks the lesion showed some steps of remission; to be sure we decided to evaluate the mucosal alteration using an oral rinse with toluidine blue which clinically stains malignant lesions and not a normal mucosa. (5-6)

The response was negative

We evaluated the patient again after 2-4-6-10-15 weeks. After 3 months the lesion disappeared

During the treatment all the patients stopped to smoke tobacco and marijuana.

Examination Protocol

We usually follow some steps to evaluate and to get a complete picture of oral complex.

In fact because the area of the floor of the mouth, the soft palate complex and the ventral and lateral surfaces of the tongue are not so easy to evaluate we pay much more attention on examining these areas.

We used a dental mirror, which is rigid and better tolerated by the patient, to evaluate the intraoral mucosal surfaces, using also a dental lamp to have a better intensity and colour balance for a better appreciating of eventual mucosal alterations.

To examine the posterior floor of the mouth, the retromolar trigone and the nearer structures, we grasped the anterior part of the tongue with sponge gauze, and moved the tongue in all the possible directions withdrawing it also as far as possible out of the oral cavity.

We also elevated the posterior floor of the mouth applying an external pressure in proximity of the submandibular gland and we evaluated also for cervical adenopathy.

Discussion

Oral cancers represent about the 3% of all the malignancies in people and the 90% of those are squamous cell carcinomas. (7,8)

The strong association between oral cancer and the use of tobacco and alcohol were well established. (9,10,11,12)

Our patients without being alcohol or tobacco addicted subjects and with a history of marijuana smokers without the presence of other important risk factors, developed an erythroplastic lesion which is recognized to be a precancerous lesion.

The only substance that could determine the development of the lesion was marijuana, a drug that as become very common in the young people ands, which is also one of the most commonly, abused substances in the world.

The studies of Fung M, Gallagher C and Machtay M (13) demonstrated the risk factor of marijuana as cancer promoter relating to the organic and inorganic compounds that are contained in this drug. Many studies also demonstrated that tetrahydrocannabinol has carcinogenic properties and that it also inhibits the functions of the immune system (14).

Authors like Darling Mr, Arendorf TM in 1993 (15) and Almadori G, Paludetti G et al. (16) described the relationship between marijuana smoke and oral cancer and precancerous lesions.

From our case report we get another demonstration that marijuana smoke is a risk factor for oral cancer and that it is important to sensitize the public opinion about this risk, fighting against the advocates of free distribution of drugs.

It is also important that people perceives the dangerous aspect of addictions to smoke and alcohol to prevent an increasing of oral cancer, also in young people, both male and female.

We also invite all the colleagues to a major attention to those patients, which present risk factors and also erythroplastic and leukoplasic lesions, not considering only the second one as an important sign of precancerous lesion. To get the early signs of oral cancer and to a better evaluating of the areas of oral cavity that we have reported.

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