

PERIODONTICS DISEASES TYPES, SYMPTOMS, AND ITS CAUSES

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Received: 14 Sep 2022

Accepted: 20 Sep 2022

Published: 22 Sep 2022

ABSTRACT

Periodontal disease is among the ten diseases that are considered the most common in adults, which occupied the researchers' interest in presenting the reader with everything related to this disease according to practical experiences and developing the necessary expertise. One of the common diseases associated with the teeth, and gums is periodontitis, as it is a disease in which the means and reasons for its occurrence vary, and it varies in severity according to the case type and cause(risk factors). In spite of all that, there are many ways to protect and avoid the occurrence of inflammation of the abutments of the teeth and gums, and there are a lot of treatment methods for that, but all of them are subject to the instructions of the specialist dentist, who diagnoses and determine the diseases case, its seriousness and other details that concerned, so he gives the appropriate treatment program and medicine.

KEYWORDS: *Periodontics Types, Symptoms, and (Risk Factors) Causes*

INTRODUCTION

There are several causes of periodontal diseases which leads to infections, and inflammations of the gums and bones which surrounded and supported the teeth, these causes represent many factors, some of them physiological causes, the remainder are divided into different factors. In the early stage periodontal diseases, that known as gingivitis, the gums become (swollen, and red), and in many cases they lead to bleeding. But in high serious form, it known as periodontitis, in this case the gums pull away from the teeth, bone may be lost, and the teeth may loosen. Periodontal disease is mostly seen in adults. Periodontal disease and tooth decay are the two biggest threats to dental health. Different risk factors have been occurred, many number of which are changeable, amenable to (intervention)(1).Periodontal disease is a common disease and causes irritation, redness and swelling of gingivitis, which is the part that surrounds the roots of the teeth in general, but it must be taken care of and dealt with seriously and must be treated urgently. It may lead to other more serious gum diseases called periodontitis, and thus lead to tooth loss. Epidemiological studied in the U.S.A. have shown that few educational-attainment, the federal poverty line, Mexican\American ethnicity, and African\American ethnicity have associate with a poor periodontal-status in multi-variable analyses (2, 3).There are many reasons that lead to inflammation of the abutment teeth, but the most common reason is the lack of attention to oral and dental hygiene. For dental care, teeth must be brushed at least twice a day, or use of dental floss continuously and periodic dental examination, all of which help prevent the effects of periodontitis. One of the most important steps that must be followed in the event of a disease in the periodontal braces is to visit the dentist, in order to see the situation and diagnose the extent of its seriousness and treatment and follow the most important instructions that he refers to. Neglecting cases of periodontitis disease and not paying attention to them, or incorrect treatment, leads to the accumulation of pathogenic germs in the oral cavity, this neglect may eventually lead to tooth loss, due to possible damage to the layer that covers the teeth. Scaling, root planning

and power driven instruments required substantially a few time, as well as cause soft tissue-trauma, however, they may lead to high root-damage (4). A healthy mouth contains more than 700 different types of bacteria, most of which are harmless. The type of bacteria that causes periodontal disease is called (periodontal bacteria) and usually these bacteria do not cause any harm or problems to the mouth and teeth, but in certain circumstances it can become harmful and pathogenic, especially when the bacteria layer is not removed and accumulated food particles, known as plaque, with regular brushing. People who are exposed to this disease for genetic reasons are several times more likely to develop it than others, so if a family member suffers from gum disease, it is very likely that other family members will be affected by this disease as well. The affected patient is advised to visit the treating doctor and perform the necessary dental examinations, at frequent intervals and periodic instructions, and to perform a professional dental cleaning, and to undergo the necessary treatments in order to follow up and monitor the disease.

INFECTIONS ASSOCIATED WITH THE GUMS LEADING TO THE INFLAMMATION OF THE PERIODONTAL BRACES

Gum disease may occur in general as a result of the accumulation of a number of pathological bacteria in the mouth and the lack of treatment, in this case there is an interaction between the body and the bacteria that are excessively present in the cavity (around the gums and teeth), which causes a lot of infections leading to serious gum disease. Gum disease is responsible for (70%) of teeth loss in adults, so among the most important of these serious diseases are:

Acute Necrotizing Ulcerative Gingivitis

It is a serious infection that affects the gums, causing ulcers and swelling, and also destroys and damages the gum tissue. There are many complications that may occur due to acute infections associated with acute necrotizing ulcerative gingivitis disease, such as inflammation of the inner lining of the oral cavity. And other infections may be caused by bacteria, fungi, or both, as often happens, **figure no. 1;A**, and Billustrates this case in different forms as shown below. These pathological cases are very serious, and require a visit to the dentist in the clinic in order to monitor and follow up the case and develop a course of treatment to take the appropriate treatment chosen by the dentist, in order to get rid of the disease completely, not partially. Oral health is very important because the mouth is the first station in which the digestive system begins, and it contains an integrated system of mechanisms that are constantly taking place, types of food, chewing and preparing it to be swallowed thus into the body cavity where the rest of the stages of digestion, and benefiting from the food inside the body. After any defect happens to the teeth will leads to increasing of pathogenic microbial activity, so the main depending of diversity of necrotizing ulcerative gingivitis relates to the microbial-plaque formation (5).If this disease continues without going to a specialist dentist, this will lead to accumulated complications that end in serious diseases such as cancer, and may lead to death after the immune system is completely weakened. Diseases occurs when the balance between the microbial-biofilm and the host is lost, leading to immune overreaction of the host to microbial presenting (6, 7). This imbalance is complex to unravel, as there are remarkable variances in both the dental plaque and the host genetic and immune system profiles (8, 9), and results in a heightened inflammatory state that leads to the tissue damage observed in periodontal disease (10).



Figure 1(A): Acute Necrotizing Ulcerative Gingivitis. (It shows a fungal infection in the tissues of the Oral Cavity).



Figure 1(B): Acute Necrotizing Ulcerative Gingivitis.(It Shows Acute Gingivitis).

Periodontitis

It is a serious infection that occurs in the gums, leading to the destruction of soft tissues as well as the bones that support the teeth, and thus cause looseness of the teeth. Globally about (10 to 15%) of people are suffered from teeth loss because of periodontal disease (11).If the condition is diagnosed and it is confirmed that the periodontal disease is worsening and increasing, it is necessary to visit the of dentist (periodontist) , who focuses exclusively on periodontal disease and is the one who gives the necessary instructions and instructions to prevent periodontal disease after its diagnosis, and determine the appropriate treatment according to the type, level and severity of the case. In the case of confirming the injury has

occurred and accumulated after the physical diagnosis through the appearance of the symptoms that the patient suffers from, it is necessary to follow all the instructions that the specialist dentist directs the patient and not to neglect and not to let the disease become difficult, in order to fully control the situation And treat it with the fastest appropriate means of treatment, in **figure no.2** the case pictures how accumulation of patient suffer from periodontitis. There are different surgical approaches are present, such as open-flap debridement, which is a procedure in the gingiva of surgically separation from the underlying tissues for providing visibility, and reaching to origin of the defect. The pocket-reduction surgery included resection of soft or\and hard tissues by using of several techniques (12, 13). The regenerative surgery included guided tissue regenerated, such as the using of barrier-membranes to induce the growing of new periodontium, by prevent the connective and epithelium tissue from growth in location that bone and periodontal ligament are desired (14).



Figure 2: To show the Case Accumulation of Patient Suffer from Periodontitis.

SYMPTOMS OF PERIODONTITIS

The first stage is gingivitis, it is reversible disease, but in susceptible individuals proceed to chronic periodontitis (15). In fact, susceptibility to periodontitis may belead to chronic disease (16, 17). so, results from epidemiological studies proved that gingivitis forego the outset of chronic periodontitis (18). The initial stages of infection begin before the pain or any specific signs or symptoms appear, and in the later stages, which are more advanced, there may appear symptoms, but they are few and very slight. moreover, the absence of gingivitis regarded as a good indicate for long term maintains of periodontal health (19). But although these symptoms and signs that accompany gum disease are usually weak and slight, the inflammation is accompanied in many cases by distinctive signs and symptoms, and these symptoms include the following:

- Frequent bleeding of the gums, especially when brushing the teeth.
- Excessively sensitive gums with redness, and swelling.
- Emission of a foul smell from the mouth, or a foul taste constantly and always.
- The appearance of deep gaps between the surface of the tooth and the gums.
- Teeth movement or loss.
- Changes that occur in the positions of the teeth or in the way they meet and stick to each other (irregularity and asymmetry) when closing the jaws.
- Obvious changes that occur in the place of an artificial teeth (dental prosthesis), or in the place of teeth crown.

In the event that you do not notice any of these signs mentioned, and there is inflammation in the gums to a certain degree, you should see a periodontist, so that he can diagnose the disease and determine the degree of its severity and the severity of periodontitis.

Causes of Dental Braces and their Development Stages

In many cases, the development of periodontitis begins with the appearance of a plaque-membrane, the cause of its formation is mainly bacteria. If the plaque is left untreated, how it can develop and eventually lead to periodontitis:

- These plaques form on the teeth after the interaction that takes place between the starches and sugars in the food that is chewed with the teeth with the bacteria that are naturally present in the mouth. Even if the teeth are brushed twice a day, or dental floss is used to remove plaque from the teeth, it will quickly come back and form again.
- Plaque under the gum line may harden into calculus that is firmly attached to the teeth. This sticky lime is difficult to remove and is full of pathogenic bacteria. The longer plaque and tartar remain on the teeth, the more damage they cause. It is not possible to get rid of tartar by brushing or using dental floss, so in this case you need a professional dental cleaning to remove it.
- The presence of plaque may lead to gingivitis, and this stage is the simplest in periodontal disease (20), as shown in **figure no.3**. We can define gingivitis as the irritation and inflammation that occurs in a part of the gum tissue around the base of the teeth or the gum tissue as a whole. In this case, gingivitis can be eliminated with professional treatment and good oral care at home.
- Gingivitis, if it continues, leads to periodontitis, and thus causes pockets to form between the gums and the teeth, which are filled with plaque, tartar is formed, and bacteria are present. Then the case doubles, the pockets formed become deeper, and filled with more bacteria.
- In the most difficult cases, if this deep and progressive infection is not treated, it causes complete tissue loss, or bone loss, with the loss of as many teeth as possible. You should know, that persistent chronic inflammation may be the main reason for stressing the immune system.
- Microbial biofilms are kind of matrix fixed with different microbial species colony, sticking with each other on tooth surface (21).



Figure 3: To Illustrate the Gingivitis, and Dental Calculus or Plaques.

THE MAIN CAUSES AND MOST IMPORTANT RISK FACTORS FOR PERIODONTITIS:

The formation of a layer of germs on the surfaces of the teeth is the first reason for the onset of infection, in addition to the fact that there are a variety of other reasons that can cause gingivitis, including:

Hormonal Disorders

These are disorders that occur during pregnancy in women at puberty, or during the menstrual cycle, leading to an increase in the sensitivity of the teeth and thus infections in the gums and other complications.

Too Much Medication

There are some classes of medicines that have an effect on the safety of the oral cavity, as some of them cause a decrease in saliva production in the oral cavity, and an unwanted layer on the gums.

Smoking

It is one of the reasons for poor oral and dental health and the cause of gingivitis, preventing the gums from regenerating and recovering automatically.

Improper Hygiene

Such as not cleaning the teeth well by brushing on a daily basis, which facilitates the emergence of gingivitis. 5. Genetic (family) causes: The presence of periodontal disease in a family member may contribute to the disease having a genetic basis.

Other Diseases

There are certain diseases in the body that affect the integrity of the gums and teeth, including:

- Cancer.
- Acquired immunodeficiency syndrome (AIDS), affects the efficiency and effectiveness of the body's immune system.
- Diabetes directly affects the body's ability to absorb sugars from different foods, which makes people with it more at risk of developing dental and gum infections.

PREVENTION OF PERIODONTITIS

A group of important ways to prevent gingivitis or dental braces includes

- Brushing the teeth well and taking care of them, to prevent the accumulation of a layer of germs on the surface of the teeth
- The use of dental floss helps to get rid of food residues and germs and remove them from the spaces between the teeth and gums.
- Using mouthwash according to the guidelines of the American Dental Association, helps reduce the amount of germs in the mouth, and prevent the emergence of a layer of germs to avoid gum infections.
- Follow healthy habits, such as stopping smoking, not avoiding psychological pressures, and maintaining a balanced diet.
- Not pulling on the teeth strongly, the American Academy of Periodontology reported that 30% of people who maintain oral hygiene and who maintain a healthy lifestyle are at high risk of developing periodontal infections due to genetic causes.

COMPLICATIONS OF PERIODONTITIS INCLUDE THE FOLLOWING

- Persistent periodontal abscesses.
- Increasing the severity of the damage to the periodontal ligament (the tissue that connects the tooth).
- Loss of the alveolar bone (jawbone) that contains the dental cavities.
- Obvious receding gums.
- Tooth loss.

PERIODONTITIS TREATMENT

The use of anti-gingivitis works to stimulate and facilitate the re-adhesion of the gum tissue after recovery on the surfaces of the teeth in a proper manner and the absence of swelling and the reduction of the depth of the pockets formed during the period of infection, thus reducing the risk that accompanies gingivitis and preventing the aggravation of the case. The methods used for periodontal treatment varied according to the different stage of the disease, in addition to the ability of the patient's body to respond to the treatments used to get rid of gingivitis, as well as the general health status of the patient. There are different means used to treat gingivitis, some of them do not require surgical procedures, which lead to controlling the amount of accumulated germs, and limiting their presence, while surgical intervention is required in cases

that require this according to the decision of the specialist dentist. The appropriate treatment for the germ layer includes professional cleaning by a specialist dentist on a regular basis, with the need to take care to clean the teeth using the brush daily.

SYMPTOMS OF PERIODONTITIS THAT ARE DANGEROUS

Gingivitis is the early and primary stage of gum disease, so it must be treated immediately while noticing the appearance of signs that indicate inflammation, so that gingivitis does not reach dangerous stages. If gingivitis is neglected without treatment, it will develop into periodontitis, which is classified as an acute periodontal disease that is difficult to treat in its advanced stages, and may be the most common cause of tooth loss. The good news is that changing to a good oral care routine can help get rid of gingivitis and keep your gums healthy. It is therefore essential that you notice any signs of gingivitis so that you can help stop the progression of gum disease. Identifying the signs is a useful guide to the symptoms of gingivitis:

Bleeding Gums

It is among the most important first symptoms of the development of gum disease. The fact that healthy gums do not bleed, when you see blood when brushing the teeth or when cleaning them using floss, this means that there is gingivitis. So even if you only see blood sometimes, you should pay attention to it and not ignore it because it indicates that it is a sign of gum problems.

Bad Breath

There are several reasons for bad breath, or what is known medically as (halitosis). Bad breath may be caused by eating something, or if you don't take good care of your teeth, it could be an early sign of gingivitis. Inflammation is caused by microbes, the most important of which are bacteria associated with gum disease, and thus a foul odor will be emitted from the mouth because it decomposes food particles in the mouth.

Swollen Gums

The color of the natural gums is a constant pink that does not change unless they have a specific disease such as gingivitis. If the gums are dark red and swollen or swollen, this is a reason for gingivitis and a sign that the gums and teeth need better care.

Receding Gums

It occurs when the gums begin to retract from the tooth, leaving the root completely exposed. Thus, the teeth appear longer than they are in the natural state, accompanied by the feeling that leads to the meeting of the gums with the tooth (gum line). Tooth sensitivity is a sign of receding gums. Appropriated maintenances and patients compliance with the recommended interval of periodontal maintenance sessions regarded as the key common factors contributed to long term stability of the diseases, and treatment success (22, 23).

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