

Prevalence of Gingivitis and Periodontitis in Saudi adult male population and the ABO blood group distribution.

Mohammad Parvaiz Farshori*, Abdullah M Alanazi, Majed M Alshammari, Abdulrahman M Alanazi.

Department of Physiology, College of Medicine, University of Hail Saudi Arabia*

College of Dentistry, University of Hail Saudi Arabia

Gingivitis means inflammation of the gums, or gingiva. It commonly occurs because a film of plaque, or bacteria, accumulates on the teeth. Gingivitis is a non-destructive type of periodontal disease, but untreated gingivitis can progress to periodontitis. Gingivitis is mild gum disease. It is an infection caused by germs called bacteria. ...Gingivitis can be treated with good dental care from your dentist and at home. Gingivitis can go away, but may come back if you do not keep cleaning your teeth properly at home. The most common cause of gingivitis is poor oral hygiene that encourages plaque to form on teeth, causing inflammation of the surrounding gum tissues. Here's how plaque can lead to gingivitis: Plaque forms on your teeth. Gingivitis is caused by the buildup of plaque—a naturally-occurring sticky film containing bacteria—on the teeth and gums. The bacteria found in plaque produce toxins that can irritate the gums and cause them to become red, inflamed, puffy, and may even lead to bleeding. (Gingivitis is actually the number one cause of bleeding gums in adults).

Other factors might increase your risk of gingivitis. If some of the factors below apply to you, pay extra attention to your teeth and gum line and talk to your dentist and hygienist about what you can do to keep your mouth healthy.

- Smoking/tobacco use is one of the greatest risk factors associated with gum disease and can lower the chances for successful treatment. Research shows that smokers are seven times more likely to suffer from gum disease than people who don't smoke.
- Poor oral hygiene, such as not brushing or flossing regularly is one of several easily avoided causes of gingivitis.

- Not fully removing plaque. You may be missing the plaque found around the gum line, even if the plaque on your teeth has been removed. Be sure to floss regularly and look for a toothpaste like Crest Gum Detoxify or Crest Gum and Enamel Repair that can reach plaque around the gum line.
- Stress is another one of many causes of gingivitis. Constant stress can weaken your immune system and negatively impact your ability to fight infection, including gum disease.
- Hormonal changes including puberty, pregnancy, menopause, and monthly menstruation cause increased sensitivity and inflammation in your gums. Take extra care of your teeth and gums during these physiological changes to prevent gum disease.
- Poor nutrition deprives the body of important nutrients and makes it more difficult for the body to fight infection, including gum disease.
- Medications for many conditions can affect oral health. Tell your dentist or hygienist if you take any prescription or over-the-counter medications.
- Chronic diseases, such as diabetes, cancer, and HIV, impair the body's ability to fight infection, including gum disease. Tell your dentist and hygienist if you have any medical conditions.

Background: Many studies have reported a high prevalence of periodontal diseases among Saudi children and the male and female adult population. Saudi Arabia has a very high prevalence of obesity and diabetes. Many earlier studies have suggested about three fold increase in the incidences of periodontitis among diabetic patients. We recently reported a very high prevalence of periodontitis among the dia-

betic adult female patients. We found a significant increase in tooth loss and tooth decay among diabetic patients. In the recent past many studies have shown an association between the inheritances of blood groups with hypertension, cardiovascular disease, diabetes and many kinds of cancers.

Aim of this study: Although many studies have been published to report ABO blood group distributions among Saudi population but to the best of our knowledge to date no studies have been done to show an association between gingivitis and periodontitis and ABO blood groups. In the current study we wanted to analyze the possible association between the inheritance of ABO blood groups and the incidences of gingivitis and periodontitis among Saudi adult male population.

Methods: Oral exams were performed by dental interns on a total of 400 randomly selected male subjects and their ABO blood group was recorded. Next we recruited 460 male subjects who either had gingivitis and or periodontitis and their ABO blood group information was recorded. Their oral cavities were thoroughly examined for the presence of dental caries, gingivitis, periodontitis, and tooth decay and or tooth loss. Data was carefully recorded and analyzed.

Results:

Our blood group distribution analysis of gingivitis and periodontitis patients showed 3.26% to be A-, 5.43% were A+, 2.82% were B-, 13.7% were B+. 3.04% were found to be AB- and 8.9% were AB+. O blood group was the most prevalent blood group with 8.04% were O- and 52.39% were O+.

Conclusions: There is a significant increase in prevalence of periodontitis in male diabetic patients as compared to the control group. Our results also show increased tooth loss among diabetics as compared to the control non diabetic patients. There was a significant decrease in prevalence of A blood group and a significant increase in distribution of O blood group among patients with gingivitis and or periodontitis.

References:

1. Farshori, M.P.Q., Naif, Al-Tamimi., Turki, SA., Saad, M.A., Ashjan, M.A., Marram, N.A., Meshari, Y.A., Fahd, M.A., Abdulsalam, S.A., Abdelaziz, S.A., Humood, A.A. (2015mp.farshoriRapidly rising rates of adult obesity and child obesity in schools of Hail region of Saudi Arabia: A comparative analysis. Integrative Obesity and Diabetes. 1: (5): 163-166. ISSN # 2056 8827.
2. Mohammad Parvaiz Qamar Farshori1 *, Ibrahim Hamad Al-Wakid1 , Ibrahim Khalil AL Ibrahim2 , Abdullah Faraj ALShammari2 , Minieaam Alduejjieman1 , Ashjaan Muhammad Almhanaa1 , Hawreyah Jazza Alshammari2 , Sarah Sulaiman Alajlan2 and Abdulrahman Yousef AlMuzaini1 (2016). Distribution of ABO and Rhesus (Rh) blood group antigens in male type 2 diabetes mellitus patients in Hail region of Saudi Arabia: High incidences of diabetes mellitus in males with B+ blood type. Integrative Obesity and Diabetes. 2: (3), 233-238. ISSN # 2056 8827.
3. Mohammad Parvaiz Qamar Farshori1 *, Abdulrahman Yousef AlMuzaini1, Ibrahim Hamad Al-Wakid1 , Ibrahim Khalil AL Ibrahim2 , Abdullah Faraj ALShammari2 , Minieaam Alduejjieman1 , Ashjaan Muhammad Almhanaa1 , Hawreyah Jazza Alshammari2 , Sarah Sulaiman Alajlan2 and Ibad M. Farshori (2017). Frequency of Distribution of ABO and Rhesus (Rh) Blood Group Antigens in the Female Type 2 Diabetes Mellitus (T2DM) Patients in Hail Region of Saudi Arabia. . Integrative Obesity and Diabetes. 3 (1): 1-6. ISSN # 2056 8827.
4. Preshaw PM, Alba AL, Herrera D, Jepsen S, Konstantinidis, Makrilakis, Taylor (2012). Periodontitis and diabetes: a two-way relationship. Diabetologia. 55 (1): 21-31.
5. Alotaibi A, LinPerry, Leila Gholizadeh, AliAl-Ganm. (2017). Incidence and prevalence rates of diabetes mellitus in Saudi Arabia: An overview. 7 (4): 211-218.