aimed to evaluate gingival crevicular fluid (GCF) levels of ADM and HNP 1–3 in relation to the pathogenesis of cyclosporine (CsA)-induced gingival overgrowth (GO).
Materials and methods: GCF samples were collected from sites with GO (GO+; $n = 20$) and without GO (GO-; $n = 20$) in 20 renal transplant patients receiving CsA (CsA GO) and CsA-medicated patients having no GO ($n = 20$). GCF were also collected from sites of tacrolimus-medicated ($n = 20$), gingivitis ($n = 20$) and healthy subjects ($n = 19$).
Results: Study groups showed similar GCF ADM levels ($P > 0.005$). CsA-medicated patients having no GO exhibited elevated GCF HNP levels in comparison to all other groups ($P < 0.005$). GO- sites of CsA GO group had similar GCF ADM levels when compared to other groups ($P > 0.0125$), but elevated GCF HNP levels when compared to healthy and gingivitis sites ($P < 0.0125$). GO– sites had higher GCF ADM and HNP levels than GO+ sites in CsA GO patients.
Conclusions: ADM and HNP might be involved in the pathogenesis of CsA-induced GO. Furthermore, low GCF levels of ADM and HNP might be associated with GO in CsA-treated patients.

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Ref no: EUABS065223

The IL-11 and IL-17 levels in aggressive periodontitis patients

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The balance between the anti- and pro-inflammatory cytokines was attributed to have an important role in the periodontal disease pathogenesis. Despite the unique features (familial aggregation, rapid rate of tissue destruction, the age of onset, etc.) of the disease, the mentioned imbalance may modulate the disease progression in aggressive periodontitis (AP). In this study, we aim to investigate the levels of Interleukin (IL)-11 and -17 and their ratio in Gingival Crevicular Fluid (GCF) of AP patients compared to healthy controls (HC). Twenty-eight patients with AP, 20 healthy controls (HC) were included. The AP group was divided into two groups according to pocket depths (PD) (a: PD ≤ 3 mm, b: PD ≥ 4 mm). For each patient, clinical parameter values were recorded. The IL-11 and IL-17 levels were evaluated by ELISA. The IL-17 concentration in AP-a group was higher and the concentration of AP-b group was lower than the HC group ($P < 0.0125$). The total amount and concentration of IL-11 in AP-a group were not found significantly different than HC ($P > 0.0125$). The total amount and concentrations of both cytokines were found significantly lower in AP-b group compared to the AP-a ($P < 0.0125$). In AP-a group a significant negative correlation between the total amount of IL-17 and plaque index score in sampling site was found ($P = 0.028$). Further studies evaluating the levels and ratio of IL-11 and IL-17 with the accepted key cytokines are needed to clarify their role in AP pathogenesis.

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Ref no: EUABS065116

Statin medication and periodontal infection

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Background: Statins have been suggested to have anti-inflammatory effects, independent of their lipid-lowering effects. The aim of this study was to investigate the relation of statin medication with periodontal infection.
Material and methods: Study was based on a subpopulation of the Health 2000 Survey, which included dentate non-diabetic, non-rheumatic subjects who did not smoke, aged 40–69 years ($n = 2032$). Periodontal infection was defined as the presence of teeth with periodontal pockets of 4 mm or more. Statin medication was categorised in two ways; firstly, subjects with statin medication of some sort ($n = 134$) versus those with none, and secondly, subjects taking either simvastatin ($n = 58$), atorvastatin ($n = 38$), some other statin ($n = 38$), or no statin medication. Relative risks (RR) were estimated using Poisson regression models.
Results: We found a statistically non-significant negative association between statin use and periodontal infection after adjusting for confounding factors (RR 0.8, 95% CI 0.7–1.1). Simvastatin medication was most strongly negatively associated with periodontal infection (RR 0.8, 95% CI 0.6–1.0), followed by atorvastatin and other statin medications (RR for both 0.9, 95% CI 0.6–1.4).
Conclusion: Despite the weak negative association, more evidence is needed on the possible effects of statin medication on periodontium.

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Ref no: EUABS065119

Fc gamma receptor gene polymorphisms and its association with periodontal disease in a population in Tamilnadu, India

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Objective: The aim of the present study was to evaluate the occurrence of FcγR gene polymorphisms in a population in Tamilnadu, India and its association with periodontitis.
Material and methods: The study population consisted of 200 subjects, 80 healthy gingiva (healthy), 80 chronic periodontitis (CP) and 40 aggressive periodontitis (AgP). DNA extracted from the withdrawn blood was typed for the following genes (alleles) - FcγRIIa (131H or 131R) FcγRIIIa (V158 or F158) and FcγRIIIb (NA1 or NA2) by allele-specific polymerase chain reaction (PCR).
Results: There was no significant skewing in the distribution of FcγRIIa genotypes between the three groups. The frequency and carriage rate of 131H allele was significantly higher in CP group ($P < 0.05$). There was no significant skewing in the distribution of FcγRIIIa genotypes and allelic frequency with the absence of the homozygous 158V/V in all the three groups. There was a significant increase in the FcγRIIIb NA2/NA2 genotype (83%/52%, $P < 0.05$) and FcγRIIIbNA2 allele carriage rate in AgP group when compared to healthy and CP groups.
Conclusion: FcγRIIa and IIIa genotypes were not significantly associated with AgP. While FcγRIIa131H allele was significantly associated with CP group, FcγRIIIb-NA2/NA2 genotype was significantly associated with AgP but not CP. The results obtained from this study do not produce conclusive evidence for the use of FcyR gene polymorphism as a risk maker for chronic periodontitis.

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Ref no: EUABS065499

Association of interleukin-10 gene polymorphism with localized aggressive periodontitis

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Background and Objectives: Interleukin-10 (IL-10) is an inflammatory and a key immunoregulatory cytokine that may be of significance in the immunopathogenesis of chronic inflammatory

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diseases such as periodontal disease. Genetic polymorphisms, modulating host immun responses to the microbial challenge, have been associated with different clinical forms of periodontitis. Genetic polymorphisms in the IL-10 gene might be useful as marker to diagnose to susceptibility to periodontitis. Therefore, the aim of this study was to investigate the association between IL-10 gene polymorphism and localized aggressive periodontitis (LagP) in Turkish population.

Materials and methods: Venous blood samples were obtained from 64 patients with LAgP and 89 healthy controls (C). The IL-10 promoter sequences at position -597 were amplified by polymerase chain reaction (PCR). PCR-RFLP technique was used to investigate the polymorphism. Genotype and allele frequencies were calculated, and data were analyzed by Mann–Whitney U test.

Results: There was a statistically significant ($P < 0.05$) difference at position -597 C/A between LAgP and C.

Conclusions: According to these data, we suggest that IL-10 gene polymorphism at position -597 seems to be associated with LAgP in Turkish population.

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Ref no: EUABS065513

Mandibular basal bone response to estrogenic treatment after ovariectomy: comparison with the femoral bone

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Studies have shown that histamine is involved, by its H2 receptors, in the mechanisms regulating trabecular bone loss in long bones of ovariectomized (OVX) rats. Ovariectomy leads to a proliferation of hematopoïetic stem cells, including mastocytes and other cells which also produce but do not store histamine. The increase of histamine is responsible for a recruitment of preosteoclastes and their differenciation into osteoclasts. We examined the effects of estradiol treatment after ovariectomy on both mandibular basal bone and long bones.

Materials and methods: 3 groups of rats were ovariectomized; 3 control groups were sham operated. 14 days after surgery, 1 OVX group and 1 sham group were sacrified. The 4 other groups received a 17b-estradiol treatment. All remaining animals were sacrificed 28 days after surgery.

Results: In the femoral bone, estradiol significantly limited the effects of ovariectomy on bone resorption parameters. The bone architecture was partially preserved. In the mandibular basal bone no significative difference was observed between OVX groups and sham groups 14 days after surgery. At 28 days, limiting effects on the resorption activity were detectable in the control estradiol group but not statistically significative.

Conclusion: The mandibular basal bone seems to be less affected by the lack of estrogen than the long bone. The control animals responded to the estradiol injections. This confirms the implication of estrogens on physiologic bone remodelling.

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Ref no: EUABS065525

The role of insulin resistance in periodontal infection

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Background: Insulin resistance is a condition that often precedes type 2 diabetes mellitus and cardiovascular diseases. The aim was to examine whether there is an association of the insulin resistance and β-cell function with periodontal infection.

Material and methods: The study population consisted of 2,050 dentate, non-diabetic subjects aged 30–64 years, who had never smoked (Health 2000 Survey). Periodontal infection was measured by the number of teeth with deepened periodontal pockets. Homeostasis model assessment indices were used to measure insulin resistance (HOMA-IR) and β-cell function (HOMA-B). Relative risks (RR) were estimated using Poisson regression models.

Results: In this population we found a weak association of insulin resistance and β-cell function with teeth with deepened periodontal pockets after controlling socioeconomic and behavioural factors. Risk estimates for deep periodontal pockets 6 mm or more were RR = 1.5 (95% CI 0.8–2.8) for HOMA-IR and RR = 1.4 (95% CI 0.7–2.8) for HOMA-B for the highest decile of both indices.

Conclusions: These findings suggest that impaired glucose tolerance may play a role in the development and/or progression of periodontal infection.

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Ref no: EUABS065461

Clinical aspects of herpes virus implication in oral-gingival pathology

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Introduction: This study research purpose is to analyze the infectious diseases with viral ethiology which have also gingival-oral clinic symptoms.

Aim: This study had evaluated, from clinical and statistic point of view, the oral symptoms caused by infectious viral diseases and their association with the systemic manifestations, laboratory results and demographic statistics.

Material and method: We studied 68 cases of herpetic gingivo-stomatitis (infected with HSV 1) during 2005–2007 from Infectious Diseases Clinic and also from Periodontology Department. We analyzed the evolution of specific oral manifestation; lesions of herpes simplex origin are described for both primary and recurrent or secondary forms.

Results and discussions: Oral symptoms of study group had a polymorphic character. 49.8% of the study group presented specific and also non-specific oral manifestations for this viral pathology. The most frequent lesions were the vesicular type associated or not with ulcerations. We found oral lesions of vesicular and ulceration type in 13 cases (9.07% of total number of studied patients) examined, and in 25 cases (17.36% of total number of studied patients) only vesicular lesions.

Conclusion: This article is an update of the most common vesicular lesions of the oral cavity. We concluded that in our area of population there is an increased incidence of these types of viruses with polymorphic character at oral mucosa.

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Ref no: EUABS065418

Effect of thrombocytopenia on periodontal healing in rats: participation of endostatin and vascular endothelial growth factor

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We evaluated the effects of thrombocytopenia on periodontal healing and determined the contribution of VEGF and endostatin. Experimental periodontitis were induced in rats by cotton ligatures. Sham rats and rats in one of the periodontitis groups

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