

 V.A.R.

## Association Between *BRINP3* Genetic Variation and Aggressive Periodontitis Among Arab Descents.

Yazeed Alhomrany

### Abstract:

**Background:** Aggressive periodontitis disease is a sever type of periodontal disease, which is characterized by enormous destruction of periodontal attachment and alveolar bone. A few loci have shown associated with aggressive periodontitis, which suggest a multifactorial genetic component. *BRINP3* locus shows correlation with aggressive periodontitis.

**Aims:** To replicate the initial findings of the relationship between aggressive periodontitis and *BRINP3* genetic variation (rs1342913) in group of Arab.

**Methods:** 263 subjects were diagnosed with aggressive periodontitis. They are originally from Syria and Morocco. They are divided into: diseased (with aggressive periodontitis n= 200. Among them 49 from Syria and 151 from Morocco). and healthy (without aggressive periodontitis n= 63). Saliva was collected, then genomic DNA was extracted. One genetic marker was genotyped (*BRINP3* rs1342913). PCR was run with TaqMan chemistry. Chi-square with alpha of 0.05 was utilized to test over-representation of genotypes or alleles between two groups.

**Result:** The frequency AA genotype is higher than GG genotype. No significant difference between allele A and allele G.

**Conclusion:** The frequency *BRINP3* is higher in aggressive periodontitis compared with healthy cases in Arab population. Based on this result, *BRINP3* gene is associated with aggressive periodontists.

**Key words:** Aggressive periodontitis, *BRINP3*, Genotype, alleles, Dominant, Recessive.



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