
Abstract

OBJECTIVE: CD24 and the adenomatous polyposis coli (APC) gene polymorphisms are known to predispose to malignant disease. We aimed to investigate their association with risk and susceptibility of oral lichen planus (OLP) in an Israeli Jewish population.

STUDY DESIGN: The study included 54 patients, of which 41 were females (75.9%) and 13 males (24.1%); of the 533 controls, 224 were females (42.0%) and 309 males (57.9%). Genotyping was performed. Two APC (I1307 K, E1317 Q) and four CD24 variants -- C170 T (rs52812045), TG1527 del (rs3838646), A1626 G (rs1058881), and A1056 G (rs1058818) -- were assessed. Frequencies were analyzed using the Chi-square test. Two-sided P < .05 values were considered significant. Odds ratios and 95% confidence intervals were obtained by logistic regression analyses.

RESULTS: CD24 A1056 G carriers have a significantly lower risk of OLP compared with individuals with the wild-type variant (P = .001). A significantly lower risk was found for heterozygote (P = .008) and homozygote carriers (P = .002). Homozygote CD24 A1626 G carriers had a significant higher risk for OLP compared with nonhomozygote carriers (P = .040). CD24 C170 T, TG1527 del, and APC polymorphisms did not show significant associations with OLP risk.

CONCLUSIONS: CD24 A1626 G is more frequent in OLP patients, contributes to disease risk, and could play a role in OLP susceptibility. A significant association between CD24 A1056 G and a lower OLP incidence was found, suggesting that it may confer protection against OLP risk and progression.