Objective: To analyze the genetic polymorphisms of the cytochrome P450 family and their relationship with squamous cell carcinoma of the oral cavity, pharynx and larynx.

Methods: We present a narrative literature review, conducted in Pubmed, Lilacs and Cochrane Databases of articles published in the last five years correlating genetic polymorphisms of the cytochrome P450 family and cancer risk in different populations worldwide.

Results: We initially found 65 articles and, after selection criteria, 20 casecontrol studies with various populations worldwide were eligible. The most studied polymorphisms were those of CYP2E1 and CYP1A1 subfamilies. There is little about the other subfamilies. The association found between polymorphisms and cancer risk amounted to a countless number of variables, amongst them: population, selection methods, racial factors and different modes of exposure to carcinogens, genotyping methods, and nomenclature of the polymorphisms.

Conclusion: so far, there is no proven link between genetic polymorphisms of cytochrome P450 family and squamous cell carcinoma of the oral cavity, pharynx and larynx relationship.

Keywords: Cytochrome P-450 enzyme system, Polymorphism, genetic, Head and neck neoplasms

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