Availability of Dental Anomaly Phenotype in Individuals with Familial Adenomatous Polyposis

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Background: Mutations in the \(APC\) gene cause familial adenomatous polyposis (FAP), an autosomal dominant colorectal cancer predisposition associated with the development of hundreds to thousands of adenomatous colorectal polyps beginning in childhood or adolescence. Both malignant and non-malignant extracolonic manifestations are associated with \(APC\) gene mutations, including approximately 17% of individuals with various dental anomalies. The availability of dental anomaly information in the medical record remains to be evaluated.

Methods: Medical records were reviewed for documentation of dental anomalies. Dental questionnaires were mailed to 271 individuals with FAP at The University of Texas M. D. Anderson Cancer Center (UTMDACC) to assess self-reported dental phenotype. Demographic data was obtained from retrospective chart review and included current age or age at death, age at diagnosis of FAP, sex, surgical procedure for polyposis, available dental phenotype information, date of last contact at UTMDACC, and \(APC\) gene mutation and codon.

Results: The response rate to the dental questionnaire was 26%. The majority of individuals (79%) were not asked about dental anomalies in the medical record. Forty-four (16%) had self-reported dental anomalies in either the medical record or on the dental questionnaire. The most frequently reported anomalies were dental crowding and supernumerary teeth.

Conclusion: Our findings are consistent with previous reports of the prevalence of dental anomalies in individuals with FAP. The results of this study indicate that dental anomalies in individuals with FAP are not consistently recorded in the medical record. Ultimately, consistent documentation of these anomalies in the medical record can aid in detection of FAP in individuals for whom genetic testing is not available. This highlights the importance of interdisciplinary approaches between clinicians, genetic counselors, and dentists to provide the best and most accurate clinical phenotype description in individuals with FAP.

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