



THE INCIDENCE AND PROGNOSTIC IMPLICATIONS OF MECT1-MAML2 FUSION IN SALIVARY GLAND MUCOEPIDERMOID CARCINOMA AMONG SERBIAN POPULATION

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OBJECTIVES: MECT1-MAML2 IS A FUSION ONCOGENE, PRODUCT OF RECURRING T(11;19) CHROMOSOMAL TRANSLOCATION, FOUND IN MUCOEPIDERMOID CARCINOMA (MEC). ITS ONCOGENIC FUNCTION DISRUPTS NORMAL CELL-CYCLE AND DIFFERENTIATION, CONTRIBUTING TO TUMOR DEVELOPMENT. THE OBJECTIVES OF THIS STUDY WERE TO ESTABLISH THE INCIDENCE OF MECT1-MAML2 FUSION IN PATIENTS WITH SALIVARY GLAND MEC AND TO ESTIMATE ITS RELEVANCE AS A DIAGNOSTIC AND PROGNOSTIC GENETIC MARKER.

MATERIAL AND METHOD: IN THIS RETROSPECTIVE STUDY, 20 CASES OF SALIVARY GLAND MECS WERE TESTED FOR THE PRESENCE OF MECT1-MAML2 FUSION USING REVERSE TRANSCRIPTASE-POLYMERASE CHAIN REACTION. CLINICOPATHOLOGICAL PARAMETERS AND SURVIVAL DATA WERE EXAMINED IN RELATION TO THE FUSION STATUS.

RESULTS: THE MECT1-MAML2 FUSION WAS DETECTED IN 40% OF MECS AND ITS PRESENCE WAS ASSOCIATED EXCLUSIVELY WITH LOW-INTERMEDIATE GRADE TUMOR HISTOLOGY ($P = 0.02$) AND FAVORABLE CLINICAL OUTCOME, WITH 100 % OVERALL SURVIVAL RATE ($P=0.046$).

CONCLUSION: THE STUDY HAS SHOWN THAT THE PRESENCE OF THE MECT1-MAML2 FUSION CAN SERVE AS AN ADDITIONAL DIAGNOSTIC AND PROGNOSTIC MARKER FOR MUCOEPIDERMOID CARCINOMAS.

THE AUTHOR DECLARE THAT THERE IS NO CONFLICT OF INTEREST.