Original Research

ORAL MUCOSAL CELL EXFOLIATIVE CYTOLOGY – A POSSIBLE TOOL FOR AGE ESTIMATION IN SOUTH TAMILNADU POPULATION

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Running title – Exfoliative cytology and age estimation

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ABSTRACT:

Introduction: Forensic age estimation is an area of competence in forensic medicine that seeks to accurately determine the chronological age of an unknown individual in judicial or legal processes. Various morphological and radiological methods are available for age estimation. The age estimation from soft tissues remains an enigma and need to be studied

Aim and objectives: The aim of the study was to estimate the age of an individual by comparing the average cell size from exfoliative cells collected from the buccal smears using Image J Morphometric analysis software.

Materials and methods: Buccal smears were collected from 60 healthy individuals followed by fixation and standard PAP staining procedure. The average cell size was measured using Image J Morphometric analysis software. Statistical analysis was done using Analysis of Variance (ANOVA) test followed by post-hoc analysis using Bonferroni Test.

Results: The results showed significant decrease in the average cell size of individuals with increase in age.

Conclusion: Age related morphometric variations are observed in buccal smears establishing that, exfoliative cytology can be used as an adjunct method along with standard age estimation methods.

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