ABSTRACT

Aim:

To study the complex anatomy of the pit and fissure system of human primary first and second molar teeth under stereomicroscope.

Background:

The pit and fissure patterns on the occlusal surface of the human teeth represent vulnerable sites for initiation of dental caries due to their morphological complexity. However the decision making for sealants is based on the personnel, tooth and surface at risk. Hence it is important to understand the pit and fissure patterns in the application of appropriate preventive measures.

Materials and methodology:

100 Maxillary and mandibular first and second primary molars were collected and stored in neutral 10% formalin, cleaned with slurry of pumice and water. The teeth were sectioned longitudinally (buccolingually), thickness ranging from 40µm to100µm with the help of carborundum disc. The ground sections of the teeth were fixed on the glass slide and examined under stereomicroscope with 10 X magnification for the fissure pattern. The results were tabulated and analyzed.
Results:

The U-TYPE (56%) of fissure pattern was more prevalent in both the maxillary and the mandibular molar teeth followed by V–TYPE (37%) of fissure pattern.

Conclusion:

The U and V types of fissure patterns were predominantly seen in the primary molars compared to the other fissure patterns.

KEY WORDS:

PITS AND FISSURES, U-TYPE AND V–TYPE OF FISSURE PATTERN IN PRIMARY MOLARS, OCCLUSAL SURFACE OF PRIMARY MOLARS.