ABSTRACT

Cyst is a disease that can occur in the oral cavity or commonly known as periapical cysts. Periapical cyst is a continuation of an inflammation of the dental pulp tissues (pulpitis), where there has been a death in the tooth nerve.

Type of research is a descriptive survey method aimed at the detection part of the teeth with periapical cysts provisional estimates. The method of research is using periapical dental radiograph images with DCT (Discrete Cosine Transform) and LVQ (Learning Vector Quantization) for classification.

Accuracy obtained was 80% for 40 training images, where the image of periapical cysts to train as many as 20 images and the normal image as much as 20 images. For the test images consisting of 20 images periapical cysts and 15 normal images.

The conclusion is periapical cysts can be detected by using DCT (Discerete Cosine Transform) and methods LVQ (Learning Vector Quantization with the best accuracy when image uses 256x256 pixel is equal to 80%.

Keywords: Tooth, Periapical Cyst, DCT(Discrete Cosine Transform), LVQ(Learning Vector Quantization).