EKSPRESI JUMLAH SEL MASTOSIT PADA PERIAPIKAL GRANULOMA

(EXPRESSION OF MAST CELLS QUANTITY IN PERIAPICAL GRANULOMA)

ABSTRACT

Background. Periapical granuloma is the most frequent apical lesion. Mast cells are mobile granule containing secretory cells that are distributed in normal periapical and periapical granuloma. The role of mast cells, however, in periapical granuloma is still obscure. The most common method to study role of mast cells in any altered condition involves their identification and quantification in that condition and compare the values with that of the normal average count or number of mast cells. The present study was thus, undertaken to identify as well as quantify mast cells in periapical granuloma and compare it with the average count of mast cells in normal periapical, thus aiming to assess the changes in count of mast cells in periapical granuloma.

Materials and Methods: Twenty cases of normal periapical and thirty cases of periapical granuloma cases from clinic oral surgery in Airlangga University between August and October 2012 were subjected to microscopic evaluation one being Hematoxylin Eosin stained slide and the other being Giemsa stained slide of each case. The slides were observed under binocular research microscope.

Results: An increase in mast cell number was observed in periapical granuloma. There is a statistically significant increase in the mean of average mast cell count per high power field in periapical granuloma in comparison to normal periapical. These facts may morphologically indicate a possibility of a role of mast cells in recruitment of inflammatory cells which are characteristic features of periapical granuloma.

Purpose. The study aimed at determining the average mast cells count in normal periapical and periapical granuloma. The objectives of the study were to determine the average mast cell count in normal periapical, to determine the average mast cell count in periapical granuloma and to determine the average count of intact and degranulated mast cells in periapical granuloma.

Conclusion. Mast cells count was found to be higher in periapical granuloma.

Keyword: Mast cells, periapical granuloma, degranulated, inflammation.