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GINGIVAL CHANGES SECONDARY TO DIPHENYLHYDANTOIN THERAPY— A MORPHOLOGICAL AND HISTOLOGICAL STUDY

D. P. M. Codipilly, B. R. R. N. Mendis and N. Senanayake
(*Department of Oral Pathology, Dental School, University of Peradeniya*)

The gingival enlargement secondary to Diphenylhydantoin (DPH) therapy, was studied in a sample of 138 epileptic patients. The gingival margins in these 138 patients was mapped so that the relationship of the margin of the gingiva to the labial and lingual surfaces of the anatomical crown is shown for each tooth. The following results were obtained. (1) The gingivae of the mandibular arch was involved 8% more than the maxillary arch gingiva. (2) In both arches it was seen that the gingivae in the anterior region (canine to canine) was affected more than the gingivae of the posterior region. (3) The most severe enlargement was seen in relation to the lower anterior labial tooth surface. The distribution of the enlargement affecting the free, attached and the alveoler mucosa was also analysed. It was seen that the involvement of the free gingiva is greater than the involvement of the attached gingiva and alveoler mucosa, in every patient studied. Biopsies were taken from 19 of the above patients and stained for light microscopic examination. The rete processes in this condition are characterized by their elongation (Aas 1963, Angelopoulos 1975). In this study seventeen specimens showed elongation while two showed a bulbous appearance. Of the seventeen specimens showing elongation, four had very narrow rete processes with an average of 3 to 5 epithelial cells across. Nine showed division at the halfway mark of the rete process while two specimens showed divison in relation to the upper third of the process. The other two sections showed elongation and splitting at various levels, together with reconnection to form a "mesh work" like appearance. Chronic inflammatory cell infiltration was most severe in relation to the region of the crevicular epithelium.