Abstract

Histopathological studies on attachment sites of nymphs, 48 h after attachment on three groups of rabbits, have revealed differences that were related to the rabbits'previous tick experience. Feeding lesions caused by Amblyomma variegatum (F.) in tick-naive rabbits were extensive and the total number of inflammatory cells was about 10 times greater than that in the feeding lesions caused by Rhipicephalus appendiculatus Neumann fed simultaneously on contralateral ears. Rabbits that were previously sensitized either to A. variegatum or R. appendiculatus by repeated tick infestations showed epidermal vesiculation and significant mobilization of eosinophils at the homologous tick feeding sites, events that did not occur with tick-naive rabbits. The feeding of A. variegatum nymphs on rabbits sensitized to R. appendiculatus produced a similar type of intense reaction, but the cellular responses to R. appendiculatus in the skin of rabbits sensitized to the A. variegatum were negligible