

Practitioners' Corner

Editor: Helmut Heydt

*Extrinsic factors in the aetiology of periodontal disease. Part II.

*A Volchansky and **E Makings

There are a number of extrinsic factors that may initiate and contribute to periodontal disease — non-bacterial in nature but they nevertheless allow for the accumulation of plaque. One of these factors is direct trauma to the gingival tissue, which may encourage bacterial stagnation or debilitate the gingiva allowing bacterial invasion. Examples of trauma are shown in the following photographs.

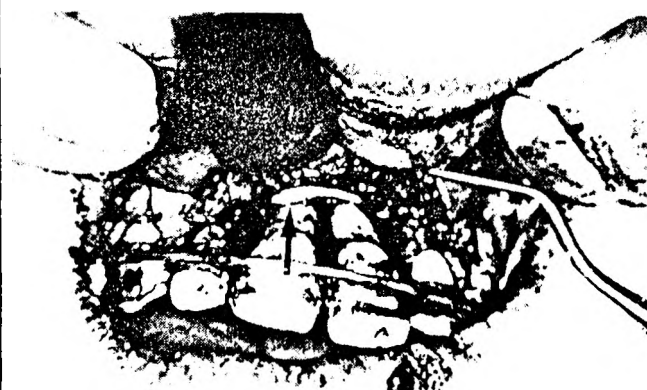
The use of wire ligation for either temporary splinting of teeth or the closing of interdental spaces may result in the wires moving apically (arrowed). The effect of this trauma could be the detachment of the gingival tissue with the downgrowth of epithelium and the formation of a periodontal pocket.



A young adult who failed to return to her orthodontist, presented with gross inflammatory gingival hyperplasia, papillary detachment and early periodontal disease. The cause of the breakdown was the combination of neglect and direct trauma to the tissues.



The use of an elastic band to close a diastema, resulted in the inadvertent periodontal damage and alveolar bone loss. The rubber band (arrowed), may be seen approximating the apices of the two upper central incisor teeth. This again illustrates the effect of direct trauma to the periodontium.



Part I was published in the March 1983 J.D.S.A.

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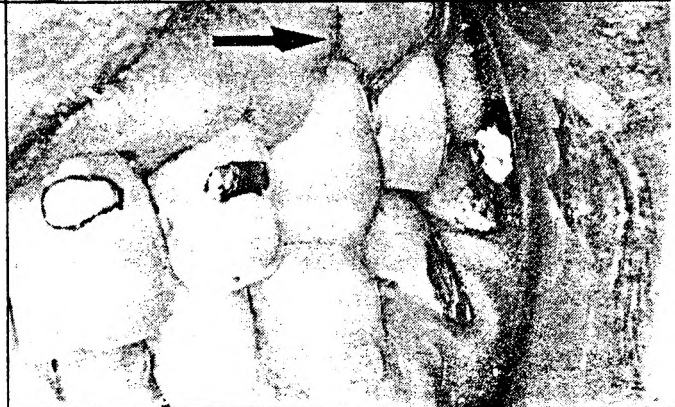
Oral habits such as nail biting or as seen in this photograph, constant thumb nail trauma to the gingival tissue (arrowed), produced recession, allowed for plaque accumulation and resulted in gingival inflammation.



A further example of the effect of direct and constant trauma to the gingival tissue is illustrated opposite. This damage to the gingiva and the root (arrowed) was produced by the habit of scratching the gingiva with a finger nail, but meticulous cleaning prevented inflammatory change as was seen in the case above.



Vigorous and overzealous tooth brushing have been indicted as a prime cause of gingival recession and the production of cuts or grooves in the marginal gingivae. An example of this may be seen (arrowed) in the adjacent photograph.



Cervical decay and demineralization encourage plaque accumulation. This dental problem is aggravated by indiscriminate restorative dentistry that may be both rough and irritating and capable of initiating periodontal disease.



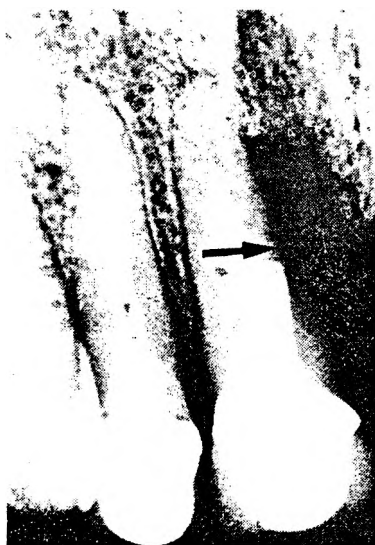
Sub-gingival decay may be the direct cause of a periodontal lesion. The clinical picture in this case is of a rolled gingival margin and periodontal pocketing (arrowed).



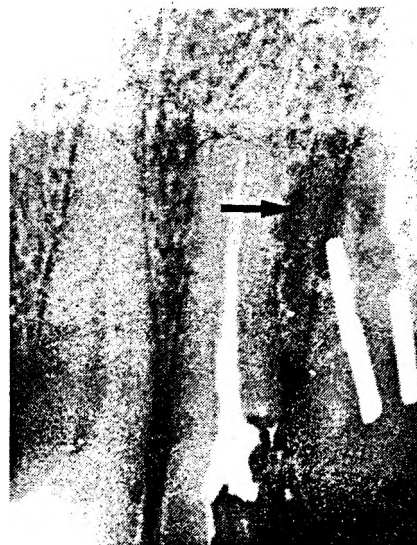
Radiographically, however, the picture of the above condition is seen quite distinctly as subgingival decay (arrowed) with the periodontal lesion superimposed.



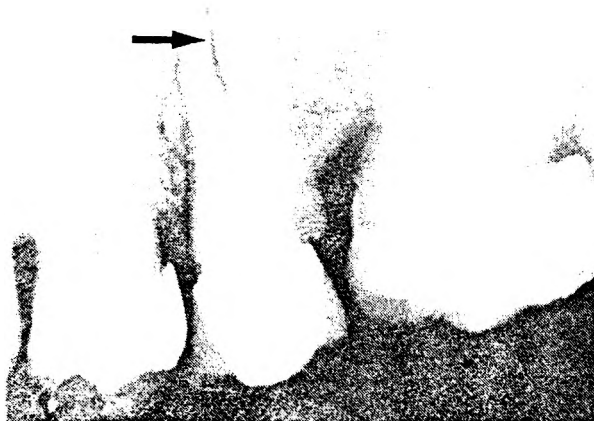
A combination of bacterial invasion and direct trauma could be blamed for the following lesions that appeared clinically as periodontal abscesses. The radiographs of post perforations, pin perforation and root fracture graphically illustrate the aetiology.



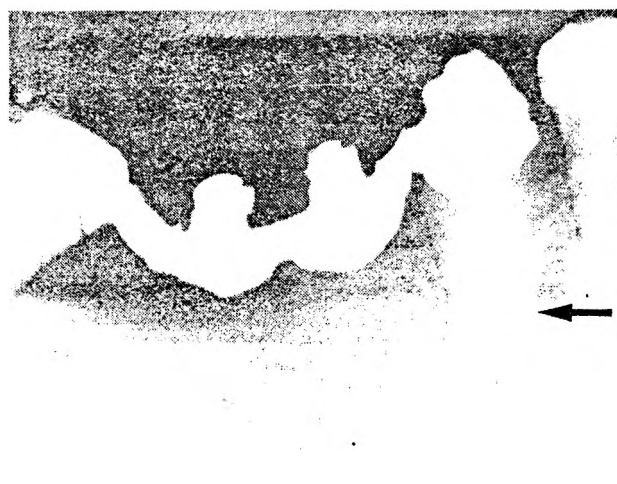
Post perforation



Pin perforation



Root fracture



Post perforation