"SENSITIVE DENTINE,"*

By Dr. R. G. McLaughlin, Toronto, Ont.

In hypersensitive dentine is frequently found the most serious obstacle to the proper and thorough treatment of dental caries. This condition must be considered as an exaltation of the normal sensitiveness of the denting, and may vary in degree from slight pain to the touch to so high a degree of sensitiveness as to be unendurable. This latter condition often presents so serious an impediment as to forbid all instrumentation till a reduction of the sensitiveness has been effected.

This altered condition of the dentine has been considered by some as an inflammation, but it can be more logically explained as "disturbance caused by sudden or gradual exposure of a tissue which is naturally protected from irritating influences by the enamel."

The normal sensitiveness of the dentine is not high, as is shown by an immediate examination of a surface exposed by accident; but after a few days the exposed surface becomes abnormally sensitive to mechanical contact or application of cold.

When the exposure of the dentine is brought about by the slower process of caries the sensitiveness is liable to be more exalted and is only prevented from giving constant indications of this condition by the presence of carious matter which is a poor conductor of heat and cold. This accounts for the fact that while there sometimes may be acute pain in the early stages of decay, the irritability appears to become less as the disease progresses.

When the dentine becomes exposed by abrasion it is generally not so irritable as when exposed by the process of caries. This is accounted for by the fact that for some reason a change takes place within the tubules by which their capacity to convey sensation is diminished, and in some cases entirely obliterated.

In the case of receding gum with the cementum exposed, a very high degree of sensitiveness is generally encountered. This particular exaltation can be explained by the acid condition of the mucous secretion which is here pounded out on the teeth, combined with the fact that these parts are not so easily cleansed.

It is noticeable, also, that different parts of the same cavity do not present the same degree of sensitiveness. It is almost invariably found that that part of the cavity forming the line of union between the dentine and enamel is the most sensitive, leaving out the theory that sensitivity is always the greatest at the terminal

^{*} Read before Toronto Dental Society.