

severe. The tooth is not sore to touch, nor does it respond by unusual pain if cold be applied to its external surface; but allow the cold to be applied directly to the sensitive spot, then quite severe pain will follow. This would indicate superficial caries; but if the pain has been very severe and persistent, and recurring apparently without any exciting cause at intervals of some hours or days, we may expect more serious trouble—deep-seated caries, at least, if not pulp exposure, and in these cases it is often quite difficult to determine whether the pulp has been exposed or not.

The pain incident to an extensive exposure of dentine varies in degree with almost every individual case from those teeth which have never even given a feeling of discomfort to those which, upon the slightest provocation, or apparently without any provocation whatever, will give rise to the most violent paroxysms of pain.

What the peculiar conditions are that afford some of these cases immunity from suffering are not entirely clear. The irritability of the general nervous system has much to do with it, while the peculiar character of the teeth exerts a great influence. Those which are very hard, or have a large proportion of the inorganic elements, will not be found so sensitive as those in which the organic elements are at present in greater ratio. Hence the teeth of adults are not so sensitive as those of children. If the decay is slow, or if the vitality of the tooth be lost in advance of the decay of the inorganic elements, the sensitiveness will not be so great as would attend did the adverse condition prevail. An enumeration of all the agencies that conduce to this condition affords a good opportunity for research.

Deep-seated caries may often be ascertained by an intensified degree of the symptoms of the superficial caries, together with the absence of those which peculiarly designate an exposure of the pulp. Every practising dentist is well aware that the pulp may be, and often is, exposed without giving any warning of its condition, but in the great majority of cases when exposed, it has reached that degree of hyperæmia or inflammation which is its most abnormally sensitive condition. And we may expect such a condition if we are told that the patient has endured at irregular intervals a sense of undefined uneasiness in all the teeth of the affected side, more noticeable in the evening, and returning, perhaps, on successive evenings; that he has been awakened sometimes from a sound sleep, kept awake for an hour or two by throbbing pains in the tooth, then slept undisturbed for the rest of the night; that hot or cold water taken into the mouth is followed by severe pain which, perhaps, cannot be localized in a particular tooth, but seems to be on the surface of all the teeth; flashes of pain in the ear or the side of the face, or, perhaps, down the neck; in fact, a neuralgia which may be distinguished from the neuralgia of malarial or gouty origin, in that the paroxysms of the latter occur