DEPARTMENT OF
ORAL SURGERY AND SURGICAL ORTHODONTIA

THE PRACTICAL APPLICATION OF OUR THEORIES IN SURGICAL EXODONTIA

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THE *Journal of the National Dental Association* published an editorial in November, 1920, from which the following paragraphs are selected. "Enthusiasm for the new, the impressively scientific, and the elation in the consciousness of being up to the minute, explain in a large measure the prevailing frame of mind."

"We have seen successive waves of scientific procedure and enthusiasm die upon the shore of practical experience."

"Another fact obtrudes—we listen patiently to many papers and more discussions on multitudinous subjects over and over again. Chemistry, organic and physiological, is presented and a listening chemist distressed, leaves. Then it is bacteriology, or histology, or mayhap surgery and an attentive specialist in one of these becoming restive, departs. A question at a later time brings the illuminating reply that the essayist was overstating or misstating, or impossibly concluding in many of his assertions."

"Confidence then in definitions, diagnosis, formulae, procedures, weakens."

For a time previous to the great war, in fact ever since the theories of focal infection have been advanced, much attention has been centered upon the oral cavity. Both the medical and dental professions agree that the mouth and teeth and particularly the granulomata or radicular abscesses which develop about the apices of the roots of dead teeth, are a very probable breeding place for many of the bacilli which are responsible for general or organic disturbances, and which are carried by the blood stream from these sources to various points throughout the system. Many methods for

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the treatment of these conditions have been suggested—and in most cases, or perhaps I should say in the worst cases, surgical treatment seemed to produce the best results. At this time the specialty of exodontia and oral surgery received a distinct impetus—more specialists entered the field. Since the perfection of our technic in local anesthesia and especially since the war the crop of oral surgeons and exodontists has increased a hundred fold. This is as it should be. No branch of science may advance without active competition with its necessary investigations and experiments. And our branch at the present time is advancing rapidly.

I come before you this evening to say a word of caution, to sound a note of warning anent the radicalism in operative procedure which has been and still is advanced by some of our most able oralists.

Because a man happens to be an enthusiast and because the doctrine that the dental structures are the foci for the localization and dissemination of the agents of systemic infection is accepted; are we therefore to be expected to accept their advocacy of radical procedures in toto? As a matter of fact in studying the writings of these enthusiasts, they appear to be mostly on the defensive and they are busy answering various theoretical objections to their technic.

Our every day technic is I believe fairly well standardized if we omit the arguments of the enthusiastic few. The most important factor is that of diagnosis, which should be arrived at with painstaking care. There should be as accurate a history of the case as possible, which can be done through the cooperation of the physician in charge if necessary. Then the clinical examination should be made in the course of which not only the dental structures, but the tonsils, throat and nasal passages should be examined very closely. Then the radiographic examination should be made and comparison made with the clinical picture. The making of a judicial dental diagnosis is not always a simple procedure, and very often the skill and ingenuity of the consultant is taxed to the utmost in working out the chain of evidence upon which he must base his opinion.

The typical case of course is the usual history of the result of a general toxemia from some unknown foci. Everything excepting the contents of the oral cavity presumably having been eliminated. The patient comes to one of us for consultation and possible treatment. The mouth may be in a sanitary condition, or not and if not, it must be made so. Ill fitting crowns and bridges should be removed. The teeth should be cleaned and the gingival margins made healthy. After this is done we are ready to consider the amount of surgical interference which may be necessary. The teeth which should be removed are first all those which will not yield to reasonable treatment. Those which in spite of our most painstaking efforts still show a discharge of pus at the gingival margin, or any other symptoms of an inflammatory process going on, either acute or chronic. Secondly, the dead or devitalized teeth should be considered. Those which show areas of rarefaction about the apices of the roots should be studied most carefully. I know that our extremists say that all dead or devitalized teeth should be

removed. I cannot accept this theory as yet. Our percentage of proved cures is still too small to make such a sweeping statement.

Don M. Graham says:

"There is the greatest confusion and disagreement regarding the status of the devitalized tooth. It is pretty generally conceded that teeth should never be designedly and purposely devitalized as a mere matter of convenience and mechanics for dental restorations. One class of physicians and dentists claim that no devitalized teeth should ever be harbored in the mouth. Still another class maintains that with careful sterilization and obturation of the canal, little, if any systemic trouble can possibly arise, since the focus, if there be one, is securely walled off by nature. Yet another body of serious and conscientious practitioners takes a middle course and maintains that with the healthy individual it is permissible and highly advisable to undertake aseptic and careful root canal filling without any fear of serious consequences. With another class of patients who are below par and show physical deterioration, they as strongly contend that no compromise should be made with the devitalized tooth.

"If a patient shows a tendency to rheumatism, or a tendency to easily catching 'cold' under no circumstances should such a person be compelled to carry the additional load of a possible dental infection. No patient belonging to the 'rheumatic group' can successfully harbor a devitalized tooth for at some inopportune time this damaged apical area is very liable to become hematogenically infected and a crippled condition is not infrequently the result."

The general conclusion seems to be that all other foci having been located or eliminated, the removal of the infected teeth should be undertaken.

The question is which and how? It is my opinion that in many cases, unfortunately it may become necessary to remove all. Let me remind you that I am now discussing cases which have come for treatment because they are sick—we know there is something wrong. Beginning with the removal of those teeth which on radiographic examination show definite areas of radiolucency about the apices of the roots. I am not wedded to any particular or spectacular technic for the removal of these teeth, excepting that I believe the simplest way to be the best. Every one must concede that the best instrument for extracting teeth is the forceps. An exodontist should be perfect in his knowledge of the manipulation of the various forceps. Other instruments may be an aid, certain operators have their pet methods, but for surgical exodontia the forceps is my instrument of choice whenever it can be used. When currettement is necessary, and it is not necessary in every case by any means, it can be done following the extraction with the greatest ease. The soft tissue can be dissected free and as much of the outer wall of the tooth socket removed as the most ardent enthusiast could desire. From a mechanical standpoint the cutting away of the alveolar wall should logically follow rather than precede the removal of the tooth. For the cutting away of the outer plate of bone we may use a bone burr, chisel or rongeur forceps.

I cannot agree as yet with those who advocate the chopping out of each and every tooth to be removed together with a considerable amount of presumably infected bone adjacent thereto. How does the radical operator know where to stop? I would not. I will venture to say that in 50 per cent of these radical operations, if the field of operation were cut into, say in from six months to a year following, a smear taken and a culture made, we would be able to isolate a moderate number of the same bacteria that were present at the time of the first operation. You may ask, How do I know this? I am unable to prove it yet, but that is my theory and I believe in time I shall be able to demonstrate it quite to your satisfaction. I do not make any protest against this technic on this account—excepting to point out that the most radical operation in my opinion is not perfect and that we can achieve the same result by using gentler methods. After the surgical work is completed a plan for restoration should be worked out giving to the patient as nearly as possible a normal occlusion and good masticating surface. These restorations should be of a sanitary and removable type.

There is nothing particularly new about this method of using the chisel on the outer plate of the process for the removal of teeth. It was described and illustrated by Prof. Williger of Berlin in 1911 in his work, "Oral Surgery," as a means of removing difficult teeth and roots and as such should be highly commended in many cases.

In very many cases the abscess sac or granuloma, or whatever you may choose to call it, comes out intact attached to the root. You will grant, I am sure, that in these cases no curettement is necessary. Curettements are necessary whenever there is any visible area of infection and not only should this be done, but it should be followed up by a thorough swabbing out with an antiseptic, such as tincture of iodine whenever the outer plate or any definite area of bone has been removed.

The extent to which the bone cutting should be carried is a question of judgment which rests entirely with the operator as applied to each particular case.

Many successful cases where palliative or reconstructive treatment has been attempted have been reported and in this connection, the operation of apicoectomy, the amputation of the diseased root end with the curettement of the adjacent area, is mentioned.

In my own experience I have found the prognosis so uncertain, the results so unsatisfactory, that I have concluded that it is much better practice to remove the tooth. The operation itself is very easily performed. A semilunar incision is made in the gum opposite the end of the root, the flap is dissected up, the end of the root is exposed, the area about the root end is cleaned out with burr, curet or chisel, as the case may be. The apex being exposed, it is cut off well below the diseased area—the root canal of course having been previously filled if possible to the apex. In a case of this sort no harm is done should the filling material be pushed through the apex. The pocket formed as a result of the operation having been well swabbed with an iodine solution, may be sutured, or may be packed and heal by granulation.

After having performed a great many of these operations with more or less negative results, I have come to the conclusion that as a means of removing a source of infection it is not a success. I believe Novitsky is right when he says that we are not arriving anywhere when we cut off a portion of a dead, septic root and allow the rest of it to remain in the jaw to continue its insidious work. But on the other hand, where we see patients with normal resistive power, apparently in perfect health, should not this method be advised as a prophylactic measure in our consideration of dead teeth, rather than advise a complete removal? I can recommend for your consideration on this point reports by Rhein, Merritt and others.

We are all studying the problem of impacted teeth. Regarding their etiology, I think very little is known—at any rate we have arrived at no very definite conclusion. Sometimes the impacted teeth are visible in the mouth—at others the information is imparted by the radiogram. These cases present for several reasons, perhaps the most common is that for sanitary reasons or prophylaxis it is deemed wise to remove the teeth. Then again there may be definite symptoms of various kinds—headaches—pain referred to the eye or ear—in many cases quite severe and of a neuralgic character.

We are all familiar with the picture as presented by the history, radiographic examination and clinical examination.

I am gratified that I am able to say that in these cases I believe our operative technic is fairly standardized. The operation should be carefully planned and performed as expeditiously as possible—by this I do not mean hurry. The perfection of local anesthesia has been a boon to humanity, but in one sense it has been a curse in that almost any one, no matter how unskilled or inexperienced, may by this means attempt many operations for the performance of which he may be quite unfitted, and because it does not hurt the patient and there is an hour or so in which to work, may get away with it somehow. This is neither exodontia nor oral surgery. What we desire is a group of men who are able to accurately diagnose these cases, have a well defined idea as to the method to be followed, and then perform the operation in a clean cut and expeditious manner.

An outline of the technic as usually followed: After having made the diagnosis and settled upon the anesthetic, the field of operation is cleaned and swabbed with tincture of iodine. An incision is then made in the soft tissues, just over the impacted tooth; they are then stripped back with a periosteal elevator so that all of the overlying bone around the impacted tooth is exposed. Then with a suitable bone cutting instrument, either a chisel, a burr, a rongeur forceps (why specify the instrument, some do well with one, some with another, this is a matter of judgment entirely, and we have no right to make rules to which exceptions must be taken in each individual case), the impacted tooth having been well exposed, it can be picked out with the forceps or pushed out with an elevator or exolever.

Just a word here regarding our anesthetic for these operations. We seem to have developed two kinds or schools of exodontists and oral surgeons—those who use local anesthesia and those who operate under general anes-

thesia. This in my opinion is wrong—it is creating a split in our ranks where no split should exist. A good operator can operate using any kind of anesthesia, or if the occasion should demand, without any at all. The question of anesthetic also is entirely one of judgment in every case. Perhaps the patient may have a preference and whenever this is the case I always humor my patient when it can properly be done. All of this talk about so and so being a conductive man, or an N_2O man, or an infiltration man, should be "scrapped" and never referred to again. We are all exodontists and oral surgeons, and good operators I trust—and I think that the choice of anesthetic to be used in each case can be safely left to our judgment, along with other details of the technic.

In closing I should like to say a word of protest regarding some of our professional brethren who are shouting from the housetops their advocacy of this or that technic in such a way that one might infer that everything else is wrong. Is it not true that two men of equal mental poise may have the same education, pass the same number of years in a profession and ultimately arrive at different opinions on some leading questions?

Let me quote a paragraph from the writing of one whose voice we have frequently heard—"Dead septic teeth should not be pulled. They should be dissected out according to the technic I have described. The dissection should be done under novocaine anesthesia." Another illustration from a medico-legal authority—"After extensive observations I do not hesitate to maintain that general anesthesia, with the few exceptions enumerated, is unnecessary in operations in the oral cavity, and that, as a medico-legal expert, I should be unable to protect an operator from indictment in case of fatal accident from general anesthesia." In this instance the "exceptions" enumerated nullify the entire paragraph; nevertheless, in my opinion, it is an unwise statement. Many other quotations might be given. From what source do these writers derive their omniscience?

Let us say what we think by all means; if we have anything novel to propose let us do so. But at least let us give the other fellows credit for doing a little thinking of their own. Probably in time other and better methods may yet be suggested and I am sure I shall try everything which appears at least once. But we should be more conservative in our statements. It is this habit of loose talking which makes so many serious misunderstandings. Let us preach what we practice by all means, but only what we practice—not a lot of theoretical bunk. Let us be honest with ourselves, our patients and with each other.