CONSERVATIVE SURGERY OF JAWS—GILMER

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It is the history of such cases as portrayed by Dr. Bogue that should put an end to criticism of this kind, because nothing is going to be more beneficial in the physical improvement of the individual than to eliminate insufficiency breathing as early as possible in life.

Dr. George V. I. Brown, Milwaukee: Dr. Bogue's measurements show that he does get results. Fine spun theories are all very nice, but exceedingly busy men have not time to go into the details of these matters. They want things done so that they can recognize them, and done promptly. I was glad to hear Dr. Bogue report some cases that were not so successful. He has given us much food for thought in this direction. The fact that in one of his cases there appeared to be a tendency to reversion to the original condition, when it was apparently cured, is exceedingly interesting. I hope Dr. Bogue will follow this case up, determine the final results, and report later.

Dr. Arthur Zentler, New York City: I happened a short time ago to speak to the former director of the Metropolitan Opera House School for voice production. This lady told me that whenever a young pupil applying for admission had defective sounds, she sent the applicants to the rhinologist for examination. After a time she found such improvements that she inquired what caused such good results. The rhinologist replied: "I send them to the orthodontist to spread the nasal arch and get a larger opening into the nasal passages." I think this statement shows as much as possible the results Dr. Bogue has spoken of.

Dr. E. A. Bogue, New York City: My only object in writing the paper was to bring testimony. As Dr. Rhein has stated, there is nothing new in it, but so many were inclined to cast discredit on the statements made by some orthodontists that I thought it worth while to get the testimony of the rhinologist who is entirely impartial. The other only feature worth mentioning was the one that my friend Dr. Brown mentioned in his paper, that this work can be done when rapid spreading is not possible.

CONSERVATIVE SURGERY FOR THE TREATMENT OF DISEASES OF THE MANDIBLE

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Exsection and resection of the mandible are followed by greater mutilation and disfigurement than follow any other oral or facial surgery. When the continuity of the lower jaw is broken by the removal of considerable sections of the bone, facial deformity is at once and permanently made, and no means of restoration by prosthesis, or otherwise, has as yet been suggested or employed, which meets the demands either cosmetically or functionally in any degree satisfactorily, either to the surgeon or to the patient. This statement may be qualified in a slight degree by excluding a few cases in which only a small section of the mandible has been removed in the anterior part of the bone, and there are present in the two fragments of the jaw a number of good sound teeth firmly set to which a bridge may be secured; and even in such cases, owing to the heavy strain to which such teeth will be subjected, it is unreasonable to expect them to withstand permanently the necessary strain of mastication without finally becoming loosened and lost.

Those who have made staying appliances for this purpose realize the many difficulties in the way. Muscular force necessary for ordinary mastication exceeds the strength of any rigidly applied fixture. That such fixtures are frequently broken by the patient, even when they are most scientifically and carefully constructed, is well known. Muscular traction on the remaining portions of an excised mandible, in ordinary mastication, causes an outward rotation at the base of the bone, through the action of the masseter muscle on closure of the mouth, and the mylohyoid muscle turns the base of the jaw inward when the mouth is opened. If a rigid appliance is used for the support of the two remaining portions of the jaw, the metal employed for this purpose, if used in size practicable in the mouth, will, by reason of long continuous strain, crystallize and break, no matter of what metal it may be constructed. To construct such an appliance sufficiently strong to withstand mastication and to not loosen the teeth, joint must be employed on each side so that the two parts of the bone may have some free movement, thereby putting less strain on the metal connection and teeth to which it is attached.

As you will note, reference has been made to prostheses for the most favorable cases only, that is those in which a section has been removed from the anterior portion of the jaw. If the continuity has been broken by removal of a considerable section in the posterior portion of the jaw on one side or the other, the difficulties are greatly increased. If the remaining portion of a jaw in such a case is supported and held in its normal position, surgical cicatrization has been accomplished, about which has been done that can be done in such cases. This may be done by wiring the teeth of the longer fragment to the corresponding teeth above, or by soldering a flange to bands cemented to the teeth of the remaining portions of the lower jaw in such a manner that when the mouth is opened the flange will rest against the buccal surfaces of the upper jaw, preventing cicatrical contraction from displacing the remaining part of the bone. Even though one of these methods be adopted, the function of the remaining part of the jaw is extremely poor. Following resection of the entire body of the jaw or even one-half of it, there is little hope for artificial restoration which can promise great value, either for mastication or for cosmetics.

When the surgeon realizes the truth of the foregoing statements he should be slow in deciding on an operation so radical as exsection or resection. He should be sure that the life of the patient can be saved only by such an operation; and I am of the opinion that it is good practice, even in some malignant types of disease, unless the bone throughout its entire thickness is involved, to do an operation which will save at least a small part of the body of the jaw in its continuity, taking some risk of recurrence rather than maiming the patient for life. Take, for instance, the most prevalent type of malignant tumors of the mandible, the giant-cell sarcoma. Since in this type of sarcoma metastases are not early formed, a conservative operation may first be done, then the case subjected to ray energy and watched closely. If the growth recurs, it is not yet too late for the more radical operation.

My experience has been such that I feel fully justified in this procedure. I have, in several instances, removed most of the jaw, leaving for support a sufficient part of the bone in which the diagnosis of giant-cell sarcoma had unmistakably been made, and there has been no recurrence after a period of fifteen years. I have done a much larger number of operations of this kind for similar cases, which after several years there is no indication of return. Unless the disease has progressed so far that an entire section of the bone is involved, I save that part which appears uninvolved, and feel justified, though there should occasionally be recurrence.
Good surgery is thorough surgery, but it does not necessarily follow that surgery to be good must always be radical. Diagnosis in mandible cases is all-important. A case was shown at the Chicago Medical Society by Dr. Carl Beck in which an entire lower jaw had been removed by a surgeon for the cure of what was supposed to be a malignant affection. After the mandible, in its entirety, had been removed, it was discovered that the condition was simply one of necrosis. In this case had greater care been exercised in diagnosis and had Nature been assisted, the reformation of the jaw would have been so complete that there would have been but little deformity, and sufficient bone would have been rebuilt to support a prosthetic appliance.

In some instances in which diagnosis of necrosis of the mandible is correctly made, some surgeons feel that a radical operation is needed, and at once, before Nature has separated the dead from the living bone, proceed to perform that service for her with the result that an additional area of healthy bone is involved and in some instances destroyed. Had the case been closely watched, properly drained and irrigated, the dead bone would have been taken off and the utmost in the osteogenic influence of the periosteum would have been at work forming a new and serviceable jaw. If in cases of necrosis of the mandible the surgeon anticipates Nature's work and cuts away the dying bone, new bone is not formed to take its place, and permanent disfigurement and functional inactivity of the jaw is the unfortunate result.

The so-called epulis of the jaws, a benign tumor of connective tissue origin, may histologically simulate sarcoma. To remove large, or even small complete sections of the jaw in such cases, is to inflict unnecessary suffering on the patient. I have removed scores of such growths, taking with them only a part of the alveolar process, and they have not returned.

I am no advocate of tempoiritizing with malignant neoplasms; but, to be sure of the diagnosis, then radically to remove all of the invaded tissue so far as we can judge, saving, if possible, a small part of the jaw in its continuity, is not temproiritizing.

For cosmetic reasons operations on the jaws, when they may be thoroughly and completely done from within in the mouth, should be done that way, but if the disease is of a malignant nature a clear field with unobstructed light is necessary to enable one to judge of the extent to carry the operation, then an external incision should be made. Such incisions may usually be made in a manner to cause the minimum of disfigurement.

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ABSTRACT OF DISCUSSION

Dr. George V. J. Brown, Milwaukee: The thoroughly practical views that Dr. Gilmer has presented of the difficulties encountered in endeavoring to overcome the mutilation and disfigurement that follows resection of the mandible, based as they are on his long experience and successful results in oral surgical practice, commend themselves to our best consideration and adoption. Of course, we all know that the only hope at present for greatly benefiting growths of the more malignant types is early diagnosis and complete radical early operation at a time this may be done without total destruction of usefulness of the parts. It is no kindness to a man to resect his lower jaw, or a half or two-thirds of it for the sake of giving him the bare possibility of one or even two years additional life. I do not consider such conditions under circumstances as those in which I have seen patients endeavoring to exist after operations of that character had been performed. When the question of resection of the jaw for cancer arises in my practice and there is on the one hand perhaps the temptation to do a big operation with doubtful prognosis, the temptation to do the simple operation for emphysema of that sinus. At this time I was suspicious of a tiny spot not quite so large as one's little finger nail. In accordance with my custom, I had sections made and under the microscope it proved to be cancer. For several months the patient got well. Then he had a recurrence. I knew if anything was to be done with the knife it must be a removal of the entire upper jaw. Such a case of his I took the patient to Dr. Ochsner and he burned the growth out. The operation was done without an external incision. Twenty or thirty soldering irons were heated, the patient was anesthetized, and these irons thrust, one after the other, into the opening, which already existed in the sinuses. This was repeated until the tissue in every direction was burned to the utmost limit that one would dare to force the iron. It was necessary to burn this patient on two different occasions and sequestra of bone came out for months afterward, but from last accounts the man was still living happily, and I feel sure that he would not have been living at this time had other methods been pursued.

I am convinced that there is no operation that can be done with the knife in the way of resecting the jaw, upper or lower, that will come near taking all out the tissue that is malignant or has a tendency to malignancy, or will so nearly overcome the tendency to recurrence of the implantation, as will burning with soldering irons. This operation is disadvantageous for those who operate and very much so for the patient afterward, but its great advantage lies in the fact that one could not so safely do so extensive an operation with the knife; hemorrhage in other kinds of operation would, in all probability, be very much more serious, and by the instead of treatment tissue is destroyed in advance, so that it continues to slough out for a considerable period of time. Thus we have micro-organisms concerned in tissue destruction, warring against and destroying the tendency to proliferation of cancer as of other cells, and this seems to exert a beneficial influence.

With the great advancement that is being made in the study of both carcinoma and sarcoma, we all hope for better methods of treatment in the near future. In the meantime, in my opinion, there can be no question of the value of the suggestion that Dr. Gilmer has given us to-day. The same principles apply with even greater force to the treatment of necrotic conditions of the mandible, because with these the surgeon, by the judicious use of suitable instruments, proper drainage, and reasonable time to allow Nature's curative and reconstructive processes to assist, should in most instances be able to control the operative conditions sufficiently to avoid hideous external scars, and seriously deformed, more or less useless jaws that so frequently result from unnecessarily rapid improperly performed operations.

Dr. T. L. GILMER, Chicago: I spoke of certain tumors of the mandible as so-called epulises. This tumor is not malignant. There is another tumor of the jaw, sarcoma, known by the name which is malignant. Epulis is a compound Greek word meaning on the gum; therefore it is not a suitable name for either growth. Neither of these growths spring from the gums, but are of connective tissue origin and usually originate in the bone or periosteum. Epulis to the pathologist means a malignant growth. It is a misleading name and should be abandoned. Microscopically some of these non-malignant growths show sarcomatous cell formation.

The pathologist should be on the alert to detect diseased of the mouth early. Since he is seeing the mouths of his patients frequently he may discover abnormal conditions before they have gone too far to remedy, without serious deformity or loss of life.

Desmilation.—This term, which is not to be found in the average dictionary, signifies the capacity to reduce amid nitrogen.