Experiences in charting blind spot restrictions

J. W. Kensett, O.D.

THIS PAPER IS SUBMITTED in an effort to interest optometrists in the Davidsen technique of charting the blind spot. It is hoped that by setting forth some of our experiences and opinions we may encourage others in the field to discover what we have found-a diagnostic procedure that relates blind spot restriction to drainage type infection. By means of this technique we have been able to offer some patients a unique service and a degree of help that perhaps otherwise would not have been available to them.

The instrument, called a caecanometer, used to measure blind spot restrictions, and the technique of plotting the projected nerve head size were developed by Ingwald Davidsen, an optometrist, formerly of Laguna Beach, California, and now of St. Petersburg, Florida. An excellent description of the device and the method of charting has been written by Guy Fenton of Kansas City, Mo.[1] Others, including Shreve, [2] Pheiffer, [3] Moore, and Davidsen[5] have authored articles on the subject of caecanometry; in their writings many case histories have been reported.

Finding Evidence of Focal Infections

One of the most attractive aspects of using the caecanometer is the small amount of time required to instruct the patient in his role in the test procedure. Provision has been made for good fixation control and the absence of a wand to hold the target reduces patient distraction; thus, the whole testing procedure usually takes but a few minutes.

We consider the caecanometer in the same category as the Multiple Target Screener and Tangent Screen. It is used routinely in cases where we suspect a visual problem is being compounded by infection of a drainage type.

Our basic concern when a patient presents himself in our office is to determine whether optometric care is indicated and or whether the patient requires the services of other practitioners in the health field. If we find evidence that a patient does have a general health problem which is affecting his visual function or a pathological condition local to the eyes, we feel it is a duty to make referral in the most direct manner so that the patient avoids delay in treatment and excessive expense.

One common type of health problem we encounter is that of the focal infection in areas of the body other than the eye that indirectly affects the function of the eye. Such sources of infection, especially those located above the shoulder level, may produce the same ocular symptoms characteristic of visual problems. Caecanometry offers a method of differentiating between the patient who will require medical or dental care prior to optometric prescribing and the one whose problem can likely be treated solely by optometric procures.

We have found that to prescribe for patients showing a restricted blind spot before an effort is made to remove the source of infections is to court failure. It is, of course, possible to be of help to these people through the use of prisms, absorptive lenses. etc. The patient's welfare, however, is better served and the reputation of the optometrist is

maintained and enhanced if he can advise a patient in advance that he has found evidence of infection that should be investigated before vision care is instituted.

When we first obtained our caecanometer in 1954, we charted the size of the optic nerve head of all our adult patients and a great many of the older children for a period of several months. This of course, was done primarily to develop proficiency.

Establishing Good Relations

It must be obvious that paramount to the successful practice of caecanometry in a small community is the establishment of good interprofessional relations with local medical and dental practitioners. These people must have a good understanding of what we ae trying to do for our patients.

In our area, we acquainted others in the health field with blind spot restrictions by calling on each doctor as we encountered a patient of his who showed evidenced of a drainage type infection. Often we would take the caecanometer along or invite the doctor to drop by our office and let us demonstrate what we were doing.

Most of the doctors we called upon were interested in cooperating with us for the benefit of our mutual patient. Whenever possible, the doctor was shown the initial caecanometer chartings and was given an explanation of why we felt that we should defer optometric care until the question of whether an infection existed was decided.

Chartings following treatment in those cases in which an infection had been found are again shown to the doctor.

The vast majority of practitioners to whom we refer are sincerely interested in their patients' welfare. It becomes our objective to make these good people aware that we are equally interested in whatever course of action is best for the welfare of our patients. Every tactful and diplomatic way of presenting our case to these doctors should be pursued. We have come to a better understanding of the problems they beset those in allied health fields, and they, in turn, have been helped to understand us and the problems of our profession.

Basis of Referral

We must keep in mind that the concept of focal infection is a rather old one. In earlier days, many tonsils were removed and teeth extracted in unsuccessful attempts to cure everything from allergies to rheumatism. There is some difference of opinion among dentists and physicians on this subject; it is important to have all possible evidence before the doctor to whom we are referring is called. This would include at least two chartings, one taken as early in the morning as practical. We are possibly conservative, but as a rule we do not refer unless a restriction exceeds 10 per cent. We also look for information in the health history that man point toward the possible source of infection.

There is no inference made to the physician or dentist that we have diagnosed the patient's health problem, nor do we recommend a course of treatment. Our procedure is to call or write to explain our findings and request that the doctor make whatever tests he feels necessary to locate the trouble. In the event the practitioner to whom we have referred the patient is unable to find a potential source of infection we make another charting. If continues evidence of nerve head restriction is found we may undertake the correction of the visual problem with the patient now aware in advance that the prescription may not be of maximum benefit as long as infection exits.

There are degrees of restriction that may correlate with the severity of the complaint and in some cases with active fundus pathology. One of the real perplexing problems involving the use of the caecanometer arises when a patient with severe symptoms return with a report of negative findings from the local doctor. Difficult as this is to handle, it is not a situation unique to those who use the caecanometer. We know of no general procedure to recommend. Each such case must be dealt with in a most diplomatic and tactful manner, keeping the patient's welfare foremost in consideration.

The caecanometer is a good diagnostic device, but we are aware of our limitations and the extent of our knowledge. It is important to keep in mind that caecanometry as well as all types of field charting is subjective and is influenced by the technique in administering the examination.

Follow-up Work After Treatment

Through use of the caecanometer for the past eight years, we have become very much aware of the role drainage type infections above the shoulder level play in the impairment of vision and ocular comfort.

The follow-up work is of great interest to the patient. To observe the return of the blind spot to normal size following successful treatment of an infection is reassuring to the patient and, like any unique service that is offered, acts as a practice builder. We can offer no statistical evaluation of the role that caecanometry has played in the growth of our practice. Yet, we consider those patients who have been helped through the use of the caecanometer to be some of our best supporters, and we feel it has been an important means of making members of other professions in our area aware that our interests encompass more than the fitting of visual aids.

The blind spot examination is not made routinely with every patient in our office. It is usually undertaken as the last test in our routine when and if we feel it is indicated.

If negative results are obtained, but the symptoms point to a drainage-type infection the patient is scheduled for an early morning charting (under near basal conditions). Should the results now indicate a drainage infection the patient is referred.

Following treatment, we again chart the nerve head size. A final charting is often made in four weeks.

Our fee for this service is based upon the number of chartings necessary to complete the case. This system is well accepted by our patients.

It has been our experience the caecanometric procedure has been especially effective where oral drainage infection is involved. Often, possibly because of the over-emphasis of earlier days, the relationship of oral infection to visual function is overlooked.

Removal of oral infection usually brings about a dramatic return to normal, or larger than normal, nerve head chartings that have previously been restricted. The other areas-the sinuses and the throat chiefly-have been more difficult with which to work.

Conclusion

We certainly do not feel that the caecanometry technique is a panacea for all our problem cases. There are more occasions than we would like when we are unable to make a correlation or when a restriction is found and the source cannot be located. In these cases, however, it can be said that the more thorough the diagnostic approach of the doctor to whom we refer, the more direct is the correlation between his finds and our caecanometer chartings.

Some optometrists we have encountered feel there is an air of mystery surrounding he Davidsen technique of charting from the visible to the invisible. Criticism has been leveled at the lack of an acceptable explanation for the projected nerve head changes. This constructive criticism is desirable and it is hoped that it well lead to further study and refinement of the subject.

Yet, it has been our experience in practice that the technique developed by Dr Davidsen works with an adequate degree of reliability so that it can be used to the benefit of our patients.

1315 West Third Street
Chanute, Kansas

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