INTRODUCTION TO CAMPIMETRY

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A study of the functional fields is the most sensitive and rewarding way we have to monitor progress in any vision training program. With a syntonic program in particular we expect to observe measurable changes in functional fields as treatment proceeds.

The functional field study during therapy answers the fundamental question: IS OUR THERAPY WORKING? When the chart tells us "yes", it also tells us how much change we are obtaining. When the chart tells us "no", it elicits the question "why?"

We then consider whether:

a) the wrong frequency may be in use, or
b) the frequency may not be strong enough.

A campimeter or the old type Goldmann perimeter can be used to assess both functional and physiological fields. The flashing (Humphrey-type) screeners in popular use are limited to assessment of physiological fields.

Charting the Fields

A. Make sure the patient is comfortable and properly centered in front of the eye piece.
B. Make sure the chart is properly illuminated.

1. Establish Extent of the Functional Field

• Use a 5 mm (1.5") white dot as your target.
• Place a small white cross at the center of the chart, saying, "This is the cross you will look at all the time."
• Draw attention to your object explaining that although he must always look at his cross, he will sometime "see" your object at the same time (e.g., "Out of the corner of his eye.").
• "Look at the cross all the time, and tell me when you first 'see' (are aware of) my dot moving."
• "Move your target from the periphery toward the fixation cross rather quickly. Mark responses."
• A number of "runs" from various points throughout the periphery should elicit a fairly consistent response at about the same radius from the cross. If not, you may need to demonstrate how the object can disappear and reappear. To do this put your object in the blind spot area saying, "My dot should be gone now." Make the patient practice keeping the object "gone", i.e. have him practice maintaining central fixation while you move the object around within the blind spot.

2. Assess Quality of the Functional Field

• Work within the radius of the established functional field.

• Move your object in a small up-and-down motion. As you approach the cross from all directions ask repeatedly:
  a) "Does the dot ever disappear?" (scotoma)
  b) "Does the dot double?" (fluid or detachment)

• Inside the 10" radius use a 5" target.

3. Plot the "Nerve Head" (Physiological Blind Spot)

• Move your object from the non-seeing area inside the blind spot to the seeing area.
  • If using a 1.5 dot, say, "Tell me when you see my whole dot."
  • If using a 5 dot, say, "Tell me when you first see my dot."

• Mark the responses at the inside of the dot.

• Measure the vertical and horizontal dimensions in mm for your records. The normal blind spot dimensions on a campimeter chart are 25 mm (vertical) x 17 mm (horizontal).

4. Plot the Color Fields

• Color fields are charted in the same manner as white fields with 1.5" color targets.
• Have the patient fixate the cross. Cover the cross with your colored object, saying, "Tell me when you see the color as it appears now. Keep watching your cross."
• Start your object at the white field limit and move it toward the cross from all directions.
• Mark the point of patient response with the appropriate color.

• An alternative method is to have the patient hold a target of the same color over the cross. As you move your object toward the center, say, "Watch only your own spot and tell me when my color matches yours."
• Plot green, red, and blue (in that order).
It is essential that doctors new to syntonic are well experienced may be able to offer suggestions for improving or changing. They may wish to train a technician to test fields, but this should be done only when a doctor is experienced enough to recognize field irregularities and to deduce whether or not to personally re-measure the fields. In many cases the patient's response, e.g. confident vs. unsure, consistent vs. inconsistent, etc., provide additional information. The doctor may then appreciate or reject these findings.

The foregoing procedures, once practiced, are easily and quickly executed, requiring about five minutes for each eye. Optometrists remind themselves of the procedures on a regular basis.

Reminders Regarding Functional Fields

1) It is possible to encounter a patient with normal fields who exhibits an enlarged blind spot, who may present with all the signs and symptoms typical of small fields. Always check the blind spot when fields appear normal.

2) As treatment progresses and the fields expand toward normal, a scotoma surrounding the blind spot (i.e., an enlarged blind spot) will often emerge and persist after the fields are normal. Treatment is not complete until the fields and the blind spots are of normal size.

3) If, after a prescribed program of treatment (commonly twenty sessions) the fields and/or blind spot, although improved, remain abnormal, it is recommended that the patient be discharged for a period of four to six weeks. Then the fields and blind spots are rechecked. The results will indicate whether your therapy has activated a response of the "balance system". Often, progress will continue (usually more slowly) after the initiation of therapy, and you will then monitor the patient at intervals, e.g., four to six months. If the fields remain as they were or deteriorate, treatment is resumed.

Rx for Understanding the Syntonic Principle

1) Be prepared for work and study
2) Read Spiller's "The Syntonic Principle" every three months
3) Memorize the "Balance Board"
4) Memorize the filters and what they do physiologically.
5) Work for approximately two years, by which time you will be seeing twenty to thirty patients per day in therapy. Only then will you begin to feel familiar with syntonics and discover that "the more you know, the more you know you don't know."

At this time a decision must be made whether to continue the same frequency or to use a "stronger" one. Usually the original (gentler) stimulus is continued if: a) the fields have not deteriorated, and b) the field response during the first program was satisfactory and consistent. (If you have difficulty with such a decision, call one of the educators for assistance.)

4) Counseling the patient prior to beginning treatment is of the utmost importance. For instance, if the fields are 10" or smaller, you may safely predict (and prepare the patient for) more than one program of therapy. This must be made clear to the patient before starting treatment. When the condition is deeply embedded (10" or smaller fields) the remission period will be prolonged. Not only the visual system may be malfunctioning in these cases, but the physiological and emotional systems may have become involved. The longer the condition has existed and/or the more severe the condition appears, the greater the probability of complicating involvement and the necessity for an extended remission period.

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