

A PATTERN OF APPROACH IN OPHTHALMOLOGIC CLINICAL CONFERENCES

GEMINIANO DE OCAMPO, M.D.
College of Medicine
University of the Philippines

Clinical may refer to bedside, disease or patient, but the most essential element is the patient. In a real clinical conference, therefore, the patient or patients must be present. Otherwise it becomes a "chalk" or "dry" clinic. The main purpose of a clinical conference is "understanding to guide action" on the particular patient. It is not about a disease or a case of a disease but a patient with some disease. Next to the patient, the most important participant in a clinical conference is the reporter. He is the one who has thoroughly studied the patient and should be most intimately acquainted with the facts and details about him as well as the pertinent literature. He is therefore also the most benefited by the clinical conference and his preparation for it. His presentation of the case is one of the most effective means of clinical training.

A clinical conference is a scientific forum and as such, "truth" is above everything. The age of the doctors or the "experiences" of the chairman should be subordinated to the "truth." Discussion about the problem of the patient is for understanding and it should not degenerate into an argumentation. The participants' objective is not to win an argument but to understand and contribute to help the patient. Dogmatism therefore has little or no place in a clinical conference and comments are made not for show or to impress the audience but to probe into the *truth about the patient*.

The chairman of the clinical conference guides and checks the reporter in his presentation of the patient and determines the approach of the subsequent discussion as to its start, its direction and its nature. He may clarify the issues or summarize the points of the discussion. He may temper the overstatements of some speakers and encourage the timid among

the students to ask questions, but his opinions must not dominate nor should his conclusion always prevail. Truth is the aim of science and clinical conferences should be scientific.

During the past two decades, I have been following and advocating a pattern of approach in ophthalmologic clinical conferences. I have found it useful and effective and probably it has influenced in one way or another the clinical approach of the staff of my department as well as the students that have spent some time with us. It is therefore with the intention of explaining this pattern of approach that this presentation is made. Perhaps it may be tried by other colleagues of the Faculty on any patient, any symptom or sign, any disease or any problem for that matter.

The pattern emphasizes problem-solving and not merely name-calling. There are four steps: the problem, the data, the analysis and the synthesis.

Problem. — The problem of the patient is the starting point. It is also the unknown and the very core of the ophthalmologic clinical conference. The main problem and the minor problems as given by the patient may not necessarily be that of his ailment nor is it always similar to the problem of the physician or the reporter of the conference.

But the problem or problems must first be stated. And it must be stated correctly and accurately, otherwise there is nothing to solve nor would it be worth solving. For example "blurring of vision" may be stating the problem but it is not as rightly and concisely stated as "slowly progressive, painless blurring of far vision of the left eye."

Data. — The data should be factual and not mere opinions nor assertions. Objective, measured and controlled data are of more value than subjective, uncontrolled approximations. Training in the gathering of data about a patient is one of the most important phases of modern ophthalmologic instruction. It often requires demonstration, checking and the use of complicated delicate instruments.

Hence the reliability and sufficiency of the data must be carefully assessed during the conference. They should be clearly, accurately and orderly but briefly presented. Verbiage is dis-

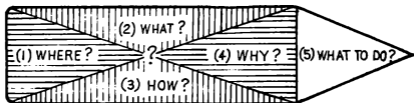
couraged. Lastly they should be ably summarized with emphasis on the relative importance and pertinence to the problem or problems on hand.

Analysis. — Discussion of the data must be factual, specific and objective in order to understand the problems of the patient. Hence the discussion does not start with the diagnosis but with the "where" of the problem. Then comes the "what" and the "how." The "why" which is often the most uncertain, follows. The name-calling or diagnosis comes the last. This is the reverse of the order in the usual clinical conferences where the reporter starts the discussion with the diagnosis or eponym. For example, one may start the discussion by calling the case Haradas' disease. Then he proceeds to fit the particular patient to the textbook, academic, general description of this disease entity. We must be reminded that textbook description of diseases are not those of any particular case but are nonspecific to fit a group of cases. Often the data of the particular patient does not fit any such generalized condition or conditions. The literature about the case are guides for comparison but not goals to conform with. On the other hand in the approach we are following, the factual data on hand about the patient are analyzed to understand the problem as well as to serve as the bases of whatever complete or incomplete diagnosis or approximate name may be given later on to the condition.

Synthesis-Diagnosis. — The naming of diseases is different from its classification. Nomenclature is often of historical origin and there are many diseased conditions named after the one who first reported a case or cases of it. Classification of diseases is an attempt to put order out of the chaos of names that have been given to diseases throughout the history of medicine. Altho often in any two textbooks of ophthalmology, many diseases are called by the same name, the authors' classification almost always vary. We have adopted and followed as closely as we can the morphologic-clinico-pathologic-etiologic bases for both nomenclature and classification of ophthalmologic diseases. This follows our pattern of approach of determining in their orderly sequence the place, then the nature and lastly the cause of ophthalmologic disturbances. And our diagnosis which bears the nomenclature and/or classification is complete or incomplete depending on the sufficiency of the data on hand about the patient.

Approach. — The pattern of approach in gathering, analysing and synthesizing the data about the problem may be briefly stated as follows: "It is the orderly series of questions about the problem correctly and precisely stated." The order must not be reversed and should always be followed as closely and as practicably as possible. It should be: 1. Where 2. What 3. How 4. Why 5. What to do. The "where" of the problem should be tackled first and not the "why" nor the "what to do."

The diagram of the pattern may be represented by a sort of 3 or 4 stage rocket missile.



Where. — (Localization) The art of questioning about the problem is very important in gathering and studying the symptoms. I believe we should emphasize the "art of clinical questioning" among our students. Symptoms are subjective, basically reactions difficult to describe and to measure and are at best suggestive. There are leading and reliable symptoms pointing to the site of the lesion. For example, itching is of superficial and epithelial origin; bilateral hemianopsia points to a post-chiasmal lesion; night-blindness suggests a retinal pathology and micropsia is usually retinal and rarely lenticular or central in origin. There are however some symptoms of uncertain and unreliable significance as to its localizing value. At times it may even be misleading. Ocular pain is such a symptom. Dizziness is another one. So with headache.

Signs are the mainstay in the determination of the localization of ophthalmologic problems. In no realm of medicine and surgery as in ophthalmology are signs based on more objective and direct visualization because of the transparency of the ocular media.

There are different aspects in direct visualization of the site of ocular pathology. We must be aware of the *points of reference* in the normal eye as well as in the diseased eye.

These are either natural or artificial. For example, natural landmarks can be utilized in determining the site of corneal foreign bodies, corneal opacities and corneal vascularization. So with the lens for foreign body and opacities. The level of retinal hemorrhage, exudates, pigmentation or tears and neo-vascularization can be determined by taking into account natural points of reference. Artificial means can be used as points of reference as staining with fluorescein or markers such as the Sweet localizer for intra-ocular foreign body.

The "where" of the lesion must be pursued to the deepest and minutest level. In no place in the body can magnifying instruments be as much utilized as in the eye. The biomicroscope can magnify as much as 40 times and the Freidenwald ophthalmoscope to as high as 100 times. However this is not sufficient to gain an insight into the cellular level.

Measurements should be used whenever possible to serve as record and basis for comparison. For example the elevation of the choked disc is measured by diopters, the site of retinal pathology by disc diameters, the size of hemorrhage by the spaces in the graticule of the ophthalmoscope and so forth.

The objective visualization of the parts of the eye by different ophthalmic instruments is based mainly on lighting and magnification. The intensity, direction, quality (wave-length) and the form of light are varied to get an insight as to the optical, physical, and pathological states of the structures. Like a microtome, light can be used to slice thin sections of living tissues *in situ* for inspection.

Intra vitam staining is also utilized to study the morphologic and biologic characteristics of some accessible ocular tissues.

Deterrents to direct visualization. — There are several elements in the act of visualization; the observer, the observed, the instrument, the time and the place of observation. Loss of transparency producing opacities in the cornea, lens and vitreous obstruct the view of structures behind them. The imperfection of the senses and the prejudices of the observer must be counteracted by training while the instrument of observation must be appropriate and adequate. The time and the direction of observation may alter the picture of the observed.

Shadows and Objective-Subjective Indirect Visualization.—The shadows of x-rays, the perimetry fields, diplopia tests and after-images are visualization with both subjective and objective elements. Each must be utilized when needed.

Levels of Localization.—The determination of the level of localization must be pursued from the whole person to the region affected to the particular organ, parts of the organ and the tissues or structures involved. If it is possible and feasible, intra-vitam and biopsy procedures to gain an insight into the cellular and intracellular levels should be utilized. And furthermore, the hypothetical smallest viable unit, the reaction of Selye should be kept in mind. I am personally convinced of its existence.

What of the problem.—The nature of the problem may be determined from the symptoms, signs, course, laboratory findings and the general classification of diseases. If we have a standard nomenclature of diseases, we do not follow a uniform classification of diseased conditions. I have devised a system of general classification of diseases which may serve as a guide in understanding the nature of the patient's problem. It is based on the essential biological phenomenon of: acton → reacton → reaction. Hence diseases are broadly divided into inflammatory and noninflammatory.

If the nature of the problem is thought of as inflammatory, the following are sought for: Evidences of inflammation based on symptoms and signs at the local site or its neighborhood. For example, evidences of inflammation in the cornea may be found in the limbus, that of the retina may be in the choroid or that of the optic nerve fibers in its nerve sheath. The course and laboratory findings should also furnish evidences that the nature of the problem is an inflammatory reaction. In addition to the evidences of the presence of inflammation we probe into its kind, intensity, time of occurrence and activity. Whether the inflammation is rising, stationary or subsiding or whether the findings are those of present or post-inflammatory conditions have to be determined.

The noninflammatory group of diseases include the congenital and/or developmental, the neoplastic and the degenerative. Developmental is really more expressive of the nature of

the condition than congenital which simply means time of appearance. Developmental is based on the presence or absence of abnormality of form, size, shape and color or function of structure. Neoplastic is based mainly on a loss of biological order. If order is heaven's first law, when it is lost there is chaos and in the biological world there is neoplasm.

Degenerative means a loss of vitality, short of death which is a loss of viability. It is based on intrinsic, intracellular or noncellular disturbance of the metabolic machinery and/or metabolic processes. There are different varieties of degeneration, the primary and the secondary which follows inflammation. The primary degenerations include (1) the nutritional or dystrophic based on lack of raw materials as protein or essential ingredients as vitamins, (2) hereditary or familial based on an inherent defect of the metabolic machinery (3) acquired defect in the metabolic machinery or metabolic processes as metabolic diseases like diabetes, and (4) hormonal or enzymatic.

Manifestations of degeneration are based on loss or change in: (1) function, such as decrease of transparency, (2) substance, such as keratinization or hyalinization and (3) form, such as hypertrophy, atrophy, or pthisis. In fact in pthisis bulbi, degeneration has passed beyond its limit into death, by the loss of viability or "bios" in the cellular level, altho not entirely in the organ level.

We make the reporter conscious of levels. We in ophthalmology try to be level-headed and level-minded. As to the nature or the "what" of the problem we recognize different levels such as: (1) physical, optical, mechanical, radiational, etc., (2) physiological, (3) biochemical, (4) biological, (5) morphological, and (6) pathological. We realize that originally when we talk of degenerations in medicine we often think only in terms of pathological or morphological manifestations. We are aware of deeper, more intangible, submicroscopic levels of biology, biochemistry, physiology and physics and the first changes of degeneration are in these levels. Hence modern research use modern tools to unravel degenerations at these levels. Awareness of the level of discussion is essential for the meetings of minds.

How.—Another aspect of the nature of the problem is the "how" or the mechanism. Allergy is more of the mechanism rather than the actual cause. The vascular pathogenesis with its attendant anoxic and nutritional effect is often evident. The mechanical aspect of a problem is easier to figure out than the biological. There are other less obvious mechanisms.

Why—(Etiology). The most uncertain and often difficult to prove is the cause. The search for the cause of diseases is dependent on the basic biological reaction phenomenon of: Acton \longrightarrow reacton \longrightarrow reaction. Usually the acton is the target of investigation but the reaction must not be neglected. The acton may be viable or living invaders giving rise to "local infection" at the site of the lesion or "focal infection" far from the lesion. The presence, lack, deficiency, excess or abnormality of nonviable actons may be the cause of the problem. The nonviable actons may be metabolic or disintegration products of viable things, chemical, physical (such as heat, pressure), physiological like nerve impulse, and psychological.

The cause of the disease condition may however be in the reacton as it is affected by physiological and pathological states, heredity, or historical and environmental factors. According to Selye, the main cause of disease is not so much in the actons but in the reaction which may be general or specific, normal or abnormal, beneficial or harmful. I believe in the theory of Selye.

While the determination of the "where" of the problem is a narrowing and deepening procedure to the minutest level, that of looking for the cause is an enlarging and widening adventure to horizons even outside the patient. It is this latter phase that bears the truth of the assertion that the more medicine one knows the better ophthalmologist he will be. While the ophthalmologist should know more and more of the finest structure of the eye he can understand them only by knowing the general laws of biology and the basic principles of medicine.

What to do. (Management).—This is based on the Hippocratic dictum, "Art is long, life is short, moment fleeting, experience fallacious, judgment difficult." Management of the problem, whether a sign, a symptom, or a diseased condition

will be as scientific or logical depending on how much of the previous steps of its localization and the insight into its nature and cause have been unravelled during the conference.

The reporter is expected to know what can be done. There are general directions from textbooks, literature, consultants or personal experiences. However what should be specifically done on the particular patient of the clinical conference should be based on "clinical judgment." The chairman of the conference is expected to have more of it.

I have tried to portray a pattern of approach in ophthalmologic clinical conferences. I suggest that you give it a trial in other clinical conferences in other medical and surgical specialties. I hope you will find it fruitful.