

EYE, EAR, NOSE AND THROAT

THE FUTURE OF SPECIALISM IN MEDICINE*

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One of the most important subjects which we have to consider today is the rapidly changing relationship of the various specialties to internal medicine in its entirety. This would be of speculative interest only were it not that we are at a turning in the evolution of medical progress. An intelligent understanding of the conditions which present themselves now, and wise action on the part of the leaders of medical thought may prevent the fortuitous development of methods which later we would gladly modify but which we will find difficult to alter when once they become firmly established.

In its bearing, therefore, this subject touches us not only as ophthalmologists. It affects medicine in every branch and through us it vitally concerns the public to whom we minister. Its essential importance to us lies in the fact that as the most definite and distinctive specialty in medicine our influence, if recognized and rightly employed, may be of great value in the solution of a pressing and difficult problem.

Briefly stated, the matter to be determined is this. With the changes which modern methods have brought in medicine, what is to be the relationship and the responsibility of the specialist to his patient, to his colleagues and to the public?

The medicine of the present century, which is only two decades old, is a new thing. The advances in physiological chemistry, in radiology, in hygiene, in epidemiology have been enormous. The social conscience has been awakened and preventive measures occupy a large place in the public thought. The socialistic propaganda that has spread throughout

the world, that every human being is entitled to be physically well, has resulted in the growth of two important movements: that of public health, and of group associations, the latter designed in some instances for the diagnosis and in others for the treatment of disease. Let us consider for a moment the effect of each of these on the general practice of medicine.

THE DEPARTMENT OF PUBLIC HEALTH

Federal, state and municipal departments have grown to assume large proportions. At first confined to the prevention of transmissible disease, they have more recently taken up the treatment of conditions for which no adequate provision was made. The prevention of disease is a perfectly legitimate field for its activities. The treatment of disease constitutes state medicine. It should be permitted only under exceptional conditions and then as a temporary expedient until such time as individual physicians may be secured to meet the needs, because just to the degree that the state assumes the work that belongs to the physician will initiative be discouraged and medical progress be delayed.

This has been the invariable experience in those countries in which state medicine has been adopted. In ophthalmology the chief federal activity has been in the treatment of trachoma. Where this occurs in districts remote from populated centers as in the mountains of Kentucky, it is to be commended and approved; but in the cities where capable specialists can be reached it is quite beyond the province of the state to encroach on the work that properly belongs to the physician. It establishes a precedent that may easily be carried to dangerous extremes. So, the compulsory employment of any prophylactic measure, as that of a particular silver salt for ophthalmia neonatorum, is to be discouraged as an invasion of the right of private judgment on the part of the physician by the state and it should never be permitted. He may be advised, but never directed in the management of his

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case. He should be held responsible for neglect of the use of proper measures, but what these measures should be he alone may determine. The use of free eye-clinics should be confined to the actually poor; for those of moderate means, other and better methods for their relief, as will be shown later, may be made effective.

THE RELATION OF SPECIALISM TO INTERNAL MEDICINE

The dependence of each of the specialties upon general medical principles has been emphasized as never before. In order that we may realize to what an extent this is true, we must remember how recent is the development of scientific specialism, and in order that we may properly evaluate any existing state of affairs and correctly estimate the direction toward which it tends, we must know the conditions from which it arose. Any contemporaneous survey is a cross section of history. It bears the same relation to the events which are happening that a cross section of the human body would have to the organs which are transected. An artery would be a circle and the heart an imperfect oval. They would have no meaning until their continuity was established and their purposes were understood. So when we consider medical practice today we must have in mind at least its more recent development so that we may have the perspective necessary to predicate the direction toward which it is tending.

Ophthalmology is one of the oldest and most distinctive of the medical specialties. What may be said of its standing in the medical world applies in even a greater degree to every other department of medical practice. Yet the history of the scientific study and treatment of diseases of the eye is of comparatively late origin. It dates back only to the brilliant period included in the short life of Albrecht von Graefe. It is true that von Arlt was already at the height of his fame when he persuaded that great genius to devote his talents to ophthalmology and it was he, and the von Jaegers, father and son, who were the early teachers of the greatest of ophthalmologists.

Von Graefe formed a most intimate friendship with Donders and Bowman and the elder Critchett, and from this group and their immediate followers came the profound studies which in their essential principles have been scarcely modified from then until the present day.

How recent all of this is will be realized when I say that Arlt and Jaeger and Stellway were still teaching in Vienna when I was a student there in 1881. Becker in Heidelberg was continuing his studies on cataract, Powers and Streiffeld were operating brilliantly in London, while Morton and Treacher Collins were at the beginning of their careers.

Herman Knapp, my own teacher, whom many here will remember, the personal friend of Virchow and Helmholtz, was contemporary with these founders of scientific ophthalmology who bringing to this country their ideals and traditions, was largely instrumental in laying the foundations of the splendid superstructure that has since been raised. Von Graefe died in 1870. This and the decade following constituted the first period when great work was done by great men. Then because of the rapid growth of our country and the need of medical service in excess of the demand the proprietary medical school flourished and held sway. Degrees were distributed to many with insufficient fundamental instruction. During the eighties and nineties no notable progress was made.

During the thirty years following von Graefe there was much good work done, but it was largely an elaboration of the principles that had been laid down by the masters of ophthalmology. Little of permanent value was given which they had not considered and discussed. With the beginning of the new century came new discoveries.

Roentgen gave us the x-ray with all of its possibilities. Madame Curie discovered radium. Studies in physiological chemistry had new and important bearings on ophthalmic pathology. The blood was analyzed, and Ehrlich gave us his theory of immunity. Neuropathology was enormously developed and the importance of focal infection was demonstrated. Re-

flexes originating in eye strain, and involving all the metabolic processes were discovered, while endocrinology added an altogether new chapter to our knowledge of the bodily functions.

The eye, then, more than ever ceases to be a distinctive and separate entity that might be considered independently from the whole organism. It shares and sometimes manifests exclusively an infection that is generally constitutional. It is subject to attacks of tuberculosis. It is one of the chief fields of pernicious activity in syphilis. Except as the result of an injury, it is so rare as to be almost unknown that any intra-ocular disease ever originates within the eye itself. The day, then, in which one may hope satisfactorily to practice ophthalmology after a few weeks or months of study following his graduation in general medicine, has gone by. The ophthalmologist must not only be grounded in his own department of special work but he must as well have that trained clinical sense that will enable him to rightly estimate the bearing of the relationship which the pathological change or functional abnormality which he finds in the eye, will have upon the whole syndrome presented or—he may be a mere reporter giving in photographic detail his findings to someone better qualified than he to estimate their importance.

This he may not always be able to do. The essential evidence of the lesion may be in the eye and its chief manifestations, a growing loss of sight. Many patients come to him directly and not through the intermediary of an internist. They have no family physician to whom they may be referred and if they have, he will very properly disclaim responsibility for the treatment of a condition which is outside his province.

The patient is growing blind. He has no other evidence of ill health. He comes to the eye specialist expecting relief. He is unwilling to be shifted over to anyone else. Upon the ophthalmologist rests the responsibility for whatever treatment is undertaken and to him will be given the credit for a cure should it be obtained, and he must take the responsibility for the failure should the sight unhappily be lost.

This is the difficulty with which the ophthalmologist is confronted every day. With our present knowledge of the etiology of intra-ocular disease he is not justified in making routine prescriptions without a full understanding of all the possible contributing causes. The first problem then, is that of the ophthalmologist who meets an intra-ocular disease having an extra-ocular origin.

What will he do with it? If it is luetic there will be other manifestations of syphilis throughout the system. If it is tubercular he cannot be assured that the eye is the only organ involved. If it is retinal it will probably be associated with some lesion of the kidneys or of the arteries or some disturbance of the metabolism and is but a local phase of a more general toxemia. If diabetic in origin he cannot hope to treat it, so numerous are the factors involved. If syphilitic, will he himself give arsphenamin, which at best can be for him only an occasional procedure, and which requires for its proper exhibition a degree of experience and skill in introducing it into the vein? If the disease is metabolic, which it is very frequently, obviously the aid of an internist will be required. If we exclude refraction (and this in a very large number of cases is of medical importance rather than as an aid to vision) and the purely technical operative measures (and these again unless in emergency should rarely be undertaken without a knowledge of the blood pressure, the condition of the heart, the kidneys and the physical conditions), there is practically nothing left which the ophthalmologist may do without the aid of his colleagues in other departments. He may not safely even undertake the removal of cataract or any other operation on the eye until he knows that the mouth is in a sanitary condition and that endogenous infection is not likely to occur. This gives an entirely new and extended range to the work of the ophthalmologist which was never considered a generation ago. He can no longer accomplish satisfactorily his own work unaided.

Fully as important is the problem of the internist who has come to him, a patient with an obscure lesion in which the loss of sight is a prominent symptom. He is

equally under obligation to his co-workers in other fields. To secure the joint services of a group of colleagues for those who are attached to a hospital with a large cooperating staff is not difficult for the patients who are under hospital care, but even here the limitations are felt at once. To those who are of ample means a group of specialists may be called in conference and the opinions of each obtained by the responsible physician in charge and the cost may be easily met, but to those in more moderate circumstances the difficulties immediately present themselves. How shall the patient pay for all of the special opinions which may be essential for a diagnosis of his case? To a certain degree an interchange of courtesies may and does often obtain. But the pathologist cannot be asked repeatedly to make cultures or blood counts for the private patient of an ophthalmologist friend without being paid for it. Nor can the rhinologist, the roentgenographer or any of the specialists be asked again and again as a matter of personal courtesy to find what may be the possible source of the disease.

We come then at once to the question of group study not in exceptional cases but in all cases, and the necessity of the development of some plan by which all of the facts can be determined, their relative importance estimated and the proper measures for relief applied. The extraordinary success of certain great clinics has led to the establishment of group partnerships in many of the large cities. Superficially this would seem to be a very adequate solution of the difficulty. The arrangement is made by which for a single fee all of the examinations are made and the treatment determined upon instituted. How desirable this plan may be will depend upon a number of elements which have not always been considered. It is exceedingly difficult for two people to be associated together in so intimate a relation as that of the practice of medicine without friction resulting. There will be almost unconsciously jealousies aroused as a dominant personality will of necessity control the group. Others will be unwilling to accept subordinate positions. With each additional member the difficulties will increase in geometric ratio unless

exceptional tact and consideration is shown on the part of each. Moreover, as the strength of a chain is found in its weakest link, so the success of the group will be determined by that of its least able member. The reputation of all will rest upon the conclusions of each. To be successful, therefore, such a group must consist of men each one of whom is unusually capable in his own department, or the group must be so loosely organized that in a question of doubt there must always be the opportunity of seeking a further outside opinion. An imperfectly interpreted radiogram of the teeth may lead the entire group into an error of diagnosis. This will react most unfavorably on each of the members constituting the group. In one instance the failure of a radiographer to locate a foreign body which another radiographer found resulted in the discomfiture of several who were dependent upon the first man's skill and judgment. The inability of a rhinologist to discover a deeply placed pus pocket not only destroyed the confidence of the patient in him but in the group who relied upon him for an expert opinion. Moreover if hard and fast groups are formed for the medical and surgical treatment of disease it must not be forgotten that if they assume entire control of the case they stand in competition and are not in cooperation with their colleagues in the locality in which they are established. Referred cases are not sent back unless it is so arranged, but what is found necessary to do is done, and the cured case is sent whence it came. While this adds to the prestige of the group it seriously detracts from that of the family physician who often is severely criticized for having failed in the diagnosis of an obscure condition. Furthermore, all specialists can not form or be members of groups. Individual work will continue to be done. Expertness in certain lines will cause a path to be made to the door of the skilled man "though he live in a wilderness." It would seem better, if such groups continue to be organized, and they doubtless will, that they be held loosely together so that the original physician in charge may be at liberty to select the consultant whom he knows to be well qualified particularly in the lines for

which advice is sought; but even if it were possible for a few highly gifted members of the medical profession to do all the work of a difficult nature it would not be for the benefit either of the public or the medical profession as a whole.

That method only is of the highest good which tends to raise the average to a higher level. This can be accomplished only by those methods which will aid the practitioner to do increasingly good work. Two things will contribute to this end, first, to supplement the fullest efforts which the physician can himself make for the diagnosis and treatment of his cases, by the added investigations and advice of men whose training and experience carry them in special lines beyond the work which he is able to do; and second, to place at his ready disposal all of those laboratory facilities which will enable him fully to diagnose and treat the case under his care. These include not only the reports of microscopic examinations and the more difficult chemical analyses as diagnostic aids but assisting him in the treatment of his cases. All the unusual and costly therapeutic appliances such as radium, and the x-ray, mechano- and hydro-therapy should be made accessible to him, and he should be encouraged to use them whenever the necessity arises. It is not enough that such cases be sent to the public institutions by him and treated there, because unless he is of an unusually self-sacrificing and altruistic character this will make him the enemy rather than the friend of such helpful and necessary treatment. The prestige of the family physician under all circumstances must be maintained. He must be encouraged to bring his cases to such institutions for curative treatment at the earliest possible moment and should have credit for doing so. It should be made to his advantage to save his cancer patients from operation and his tuberculous patients from death, and he should give his cordial support to their early treatment by the use of such extraordinary measures as he cannot himself supply but which we know to be eminently successful.

The only practicable way in which this can be done seems to be in the establish-

ment of clinics for diagnosis only. In this there must be self sacrifice on the part of those constituting them. It is not so imperative, either, that the members of such clinics should be of the highest ability. The regular and full staff of any properly constituted hospital is adequate for this purpose. The members constituting such a clinic are not supposed to be infallible. They aim simply to be helpful, and the mere fact of having complete routine examinations made of the patient and recording the findings followed by a discussion in which all of the examiners participate, is in itself enough in a large proportion of cases to establish the nature of the trouble from which the patient is suffering. When doubt remains other consultants may be included in the consideration of the case. The names of those constituting such a clinic should not be exploited. The patients should be received only through the medium of the attending physician. Only through him or in his presence should any treatment be administered. He should be present at the consultation. His standing in the sight of the patient should always be maintained; nor should he through indolence or indifference be permitted to shift the burden of the laborious and routine part of the work on others. He should be expected to make every possible test himself before asking the help of other busy men. The laboratory and other clinical facilities should be open to him and he should be invited to use them. Indeed, in this he should be assisted by those who are themselves experts. A case studied in this way would make each participant far more capable of determining the importance of the bearing of its facts when the next case comes up, and a clinic managed in this way would be a continued post-graduate course of instruction for those taking part in it.

For people in moderate circumstances a method should be arranged in which a group fee should be paid commensurate with the income and responsibilities of the patient. In this the family physician should share. Such consultations should never be gratuitous except for those who are actually subjects of charity although the joint fee should be made so low that to none need the services of the diagnostic

group be denied. The public must not be allowed to get the idea that high grade medical service is of little value, or popular psychology is such that people will soon begin to consider it of little worth.

In determining then what is to be the future of ophthalmology we may equally well anticipate the course which all specialism must ultimately take. The specialist must individualize. He must work intensively. He will develop the highest degree of technical skill possible, but his work will be one-sided, incomplete and his therapeutic measures totally inadequate unless they are developed as parts of a completed whole. To attain these results a method must be determined upon, through which every physician shall have access to all of the facts and all of the measures necessary for an adequate diagnosis and intelligent, scientific treatment of all of his cases. The practicable method would seem to be through the establishment of standardized diagnostic clinics in every hospital. To such a clinic any reputable physician should be invited to bring his cases for consultation. The hospital and medical services should by no means be on a charity basis. For the very poor other arrangements should be made. A single fee should be charged by the hospital which would include all of the services rendered. The amount of this fee should depend upon the ability of the patient to pay. From the total sum received a portion would be deducted for the hospital expenses, but the remainder should be shared proportionately by the diagnosticians and the attending physician. The financial arrangement should be the work of a committee belonging to the hospital so that the physician himself should not be concerned in any case in the money involved in the transaction. In this way the self respect of the patient and the dignity of the physician would be maintained, the value of medical service would be recognized and specialism would be so balanced in its relation to medical practice that each branch would be rightly evaluated.

DISCUSSION

Dr. E. H. Cary, Dallas, Tex.—This paper opens the biggest subject that confronts the medical profession at this time. I do not know of anything else that is of so much interest to us and to every other man practicing the art and science of medicine as the questions that have just been raised. Everybody is trying to find a solution of this problem. We all have something in our minds that we think might help in the solution, but I doubt that any of us has been able to outline any plan which would seem to cover the case. It seems that we all went wild on specialism and in our effort to know all that we could about any one subject we drifted so far that it was generally thought we knew a great deal on our one particular subject and little about the rest of the human body. There is no doubt that we have drifted too far. Some men were wise enough to try to adjust affairs by trying to bring together a group of men who might have some definite ideas and whose ideas might pan out for the good of society, but the nose and throat man thought he could not associate with the ear man, and the ear man discovered it was not nice for him to associate with the eye man, and so we drifted. Now the leaders in medicine are being quoted as saying that state medicine will come in two years and that that will involve everyone practicing the art. That is to say, people will not only be protected in the way of prevention of disease, but through state supervision be cured of disease. There is undoubtedly a drift throughout the land to the idea that the state should attempt to make this whole question of the prevention and cure of disease one of state supervision instead of supervision by men who are educated in medicine. It seems to me that we have to start somewhere to forestall the things which are likely to happen to the profession, and if we are going to start somewhere we had better be rational about it and cut out any individualism that has been manifested. And we had better quit dropping medicine into the eye when it does not do any good; quit spraying the nose and throat when it does not do any good; quit doing many things that are more or less superficial and of temporary benefit and get back to where we can develop a larger number of hospitals throughout the land, hospitals in profusion, hospitals that will attract men and women, that will make it easy for people to go where there are facilities with which to work. We all know that it is impossible, as the Doctor has indicated in his paper, to practice medicine alone today satisfactorily. We must have information, and we must have facilities, and we must create places where these facilities can be had, where they may be economically and satisfactorily used, and where patients will get the benefit they deserve in the study and treatment of their case. We, therefore, need to get closer together along correct lines of practice. It is impossible for the internist (who is now trying to catch the surgeon and get ahead of him in this group work), to take tabulated statistics from the various departments and interpret them correctly. It is impossible because he cannot get definite, distinctive information which correlated in his mind would actually lead to correct con-

clusions. There is where the clinicians fall down. And it is necessary for a man to read his own radiographs and not take the reading of another man, to interpret them as he is finally enabled to with his knowledge of the case. It is necessary for a great many things along that line to take place to be able to give people correct service, and I regret that the time allotted me will not enable me to go into more definite detail.

Dr. William T. Davis, Washington, D. C.—There is probably not a man in this room who is practicing the specialty of ophthalmology or otolaryngology who does not have this problem before him daily. I know this is so in Washington. It is utterly impossible to practice ophthalmology efficiently, unassisted by our confreres in medicine and the related sciences. I came to that conclusion several years ago and have been seeking some way to work out a solution of the problem. Dr. Lewis has given us a very practical solution.

Dr. Charles Bahn, New Orleans, La.—If you will look forward ten years, in other words, if you will project yourself into 1930, you will see about this happening in ophthalmology. In most cities there will be diagnostic hospitals and clinics, in other words, group medicine will take care of a goodly percentage, but the larger percentage of all the patients will be taken care of by large firms. I mean by that, specialized organization which will be built to make more people see better in less time. We people with competent assistants can unquestionably give the public better service and quicker service than one man can alone. In a one-man clinic you may have a \$10,000 a year man doing \$8.00 a week work, and probably not doing it so well as an \$8.00 a week clerk would do it.

Dr. Lewis (closing).—Dr. Cary put the case in a nutshell when he said that it is not merely the matter of our personal convenience as to how we are going to arrange our private practice, but as a profession, we are facing state medicine. We in New York escaped it by a hair's breadth last year. I am under the impression that most of us would not oppose state medicine if we felt it would be for the public good, but that which is not for the betterment of the physician and surgeon, that which does not encourage him to higher and better efforts cannot be good for the public. State medicine everywhere has resulted in taking away from the individual doctor the stimulus for doing the best work of which he is capable. I cannot believe any greater disaster could fall upon the public than for the United States or any of the states to adopt state medicine. Those of you who have not considered the question cannot begin to realize how disastrous it would be. It would mean that a layman would be in charge of the doctor. The intelligent trained physician would be under the direction of this layman in determining how long any particular case should remain under treatment and whether the measures he is using are those which meet with the approval of this layman, often politically appointed. One cannot imagine the condition of medicine under these circumstances. It would be reactionary in the extreme. We are just at the turning point. The public will demand state medicine unless we give something better. It is up to us to determine what that better thing shall be. It is obvious that if we treat our patients successfully we as ophthalmologists must have all the available facts bearing on the case. How shall they be secured? I can think of no better way than that I have outlined in the paper which I have presented.