

and if this is not promptly obtained by remedial measures I think that the question of dilatation is quite within the bounds of conservative surgery.

DR. C. J. KIPP, Newark: I wrote on this subject twenty-nine years ago and am surprised to hear the last speaker say he has seen so few cases. I see cases at least once a month. They come as cases of ophthalmia limited to one eye. In all cases treated within the last ten years I have used simply cleansing and pressure and have not had to use a probe in any case. The cases that come with abscess of the lachrymal sac are those that have been probed by other oculists. Cases that come to me within a couple of weeks after birth are cured in a very short time by simple cleansing and pressure. You must instruct the nurse or mother to exert pressure properly to direct the secretions downward. If you do it yourself you can often feel the obstruction give way. I think that the best plan, even for a skilful oculist, is to avoid probing. You can get along without it. Of course, it makes more of an impression on the mother and friends to use the probe, but it is more beneficial to the patient to use the finger.

DR. HERAM WOODS, Baltimore: I recall four cases that I have followed very closely. One got well without any treatment whatever. It was simply treated on the expectant plan, expressing the secretion and cleansing, and in two months the whole thing disappeared. The other cases were treated by probing under anesthesia. In two cases one single probing effected the cure. In one of the cases a difficulty arose in getting a probe down into the nose. The small No. 2 Bowman passed a short distance, then stopped, and it was impossible, without exerting more pressure than I cared to use, to introduce it further. It occurred to me that the difficulty might be a catarrhal swelling of the mucous membrane. After two weeks of waiting a third attempt took the probe directly into the nasal cavity without effort and the case has remained well now for six months. I think that it is extremely important to realize in the introduction of probes into the infant lachrymal duct that when mucous secretion has persisted there is possibility of a good deal of swelling in the lower end of the duct and rough manipulation may do a good deal of harm.

DR. W. ZENTMAYER, Philadelphia: In my first case the patient had been treated by a local ophthalmologist for catarrhal conjunctivitis. An immediate cure followed the passing of a probe. It was the gratitude of the mother in this case that caused me to pursue the treatment advocated in my paper in subsequent cases. It is very unpleasant for a mother to have an infant with a purulent eye to show her friends and she is grateful for having it cured by a single treatment. Dr. Jackson says that he would treat a member of his own family in the expectant manner. So would I, because I should have the patient under constant observation. In practice this is not possible, and if the treatment is giving no results, the patient is apt to be neglected and serious trouble may supervene. In the Rostock clinic and in the private practice of Professor Peters, but seventeen cases were observed between 1901 and 1908; so that the condition can not be considered a common one. Mayou, whose experience has been large, states that if these cases be seen before an abscess forms one careful passage of a probe is generally sufficient to effect a cure. Dr. Woods' difficulty in passing a probe in his case may have been due to that condition referred to in the fifth division of the etiology, "partial occlusion by pressure of the inferior turbinate bone."

The Ocular Tuberculin Reaction.—E. Waldstein in the *Prag. med. Wchnschr.*, Feb. 27, 1908, xxxiii, 9, warns against the use of the tuberculin ocular test in cases in which disease of the conjunctiva exists. He says that the reaction in such cases is much more severe than in sound eyes and may cause inconvenient results. The cutaneous method of von Pirquet, in which a healthy skin is expressly stipulated, is therefore preferable as it in no way endangers the health of the patient, while the conjunctival reaction often extends beyond the desired limits and sometimes causes permanent lesions.

THE CORRELATION OF CLINICIAN, PATHOLOGIST AND LAYMAN.*

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Medicine has two fundamental objects in view, of equal and vital importance: first, the immediate relief of human suffering and the restoration of the individual to his normal standard of health; second, the protection and maintenance of the members of society in this normal state. The first strictly concerns the clinician, the second the hygienist.

Hygiene, although strictly founded on scientific medical data, nevertheless, so intimately is associated with many intricate sociologic problems that we recognize it as a science distinct and apart from medicine in its more restricted significance.

I wish to center your thought more particularly on clinical medicine or that intimate association between physician and patient in the diagnosis and treatment of disease, as well as to point out the inestimable service rendered both laity and the profession by the pathologist, the clinician's inseparable companion.

Virchow recognized the clinician as the close and confidential agent of the pathologist, as it is he who garners the data from life which the latter is to combine with those of his studies as he forges the chain of our understanding of morbid phenomena. The clinician must guard the truth and accuracy of his findings as carefully as the pathologist does the facts elicited by his work, so that when these combined data are received in the final summing up of the evidence the conclusions to be drawn therefrom shall rest on trustworthy premises.

The one can not be regarded as the superior of the other, for both reciprocally are dependent as they struggle in their respective spheres each to search out and collect the evidence which united deciphers Nature's hieroglyphics.

The clinician is often confronted with an array of symptoms as occult and intricate as the solution of a Chinese puzzle. It becomes his duty to separate the primary from the secondary symptoms, carefully to place each in its proper perspective, and therefrom logically to deduce a true conception of the actual underlying pathologic processes involved, for which he is to advise rational means that are to remove the cause and hence the effect. A comprehensive understanding of the etiology of disease, a vast bedside experience, in conjunction with a thorough knowledge of the fundamental truths of pathology, compose the tripod on which he must stand before attempting to solve the mystery. Even then the task is not always a simple one.

The clinician who is privileged to have his bedside conclusions reviewed by the pathologist is indeed fortunate, for thereby his errors become rectified, and after repeated humiliating disclosures stern necessity compels the cultivation of that spirit of intelligent criticism and conservatism so essential for mastery over the difficult details of medical science.

But he who knows not the blessings of pathologic criticism may go on and on, year after year, committing the same error over and over again because of the lack of this acquaintanceship with the pathologist, who, though occasionally quite discomforting to an oversensitive soul, yet nevertheless remains the clinician's best

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friend. This correlation of clinical medicine and pathology is wisely acknowledged abroad both by the profession and by the laity and acted on accordingly, whereas here in America as yet it receives but scanty recognition.

With these introductory remarks, let us turn our attention to the inductive method of diagnosis, cursorily passing in review the two premises which constitute the basis of our bedside conclusions, the anamnesis and the status *præsens*. I shall try to point out a few striking instances of the erroneous diagnoses which frequently occur because these premises are too carelessly considered or even negligently disregarded.

The value of an accurately gathered anamnesis is of as much importance to the physician as the shrewd sifting of testimony is to the lawyer. Frequently when the clinical symptoms are too few or misleading we must rely quite implicitly on the anamnesis alone.

It is not easy to obtain a history sufficiently trustworthy to form the major premise on which to rest a diagnosis. Too great caution can not be taken to keep our patients in a calm confidential attitude so that the truth may be elicited without omission or modification from pride, fear, forgetfulness or overstimulated imagination.

Our interrogations should be as simple, clear, logical and few as the necessity of the individual case demands, for confusion in our minds inevitably will be reflected in the minds of our patients. Each statement should be accepted only after the most critical examination. The anamnesis, in some cases, of necessity must extend to the collateral branches of the family to trace the influence of the now universally accepted law of atavism.

Unfortunately, history-taking in some of our hospitals is frequently done in a perfunctory, hurried manner. This branch of the work is usually entrusted to the younger members of the house staff, who are as yet new and inexperienced and often show a sad tendency to slight this rather irksome yet, nevertheless, most important task for the more spectacular scenes of the bedside or operating amphitheater.

It would appear judicious for the profession to appoint a commission, composed of both clinicians and pathologists of long practical experience, to formulate some general plan of history-taking, strictly relevant and compendious, yet sufficiently comprehensive to meet the fullest requirements of medical science, so as to be accepted as a standard by all public hospitals.

The resultants of the work in our various hospitals must be combined into ultimate conclusions which shall represent the standards of medical thought and practice. The starting point for such a combination of forces is the standardizing of all hospital anamneses. The goal will be attained after the laity are educated to the point of placing reason above sentiment and permitting science to complete on the dead body the search for truth begun during life. When such ideal conditions prevail here in America then the statistics and generalizations of scientific medical data from our hospitals will be the more accurate and acceptable because of the vastly increased number of cases recorded under the one and same general plan of work.

Passing now to the status *præsens* or the physical examination of the patient, we find here a field productive of the widest differences among physicians. Hasty observations, with their ill-drawn conclusions, overconfidence, and, in many instances, common ignorance of pathologic anatomy, owing to the comparatively infre-

quent autopsies in this country, are among the causes for these differences.

No symptom can be too trivial to be neglected, for often an apparently insignificant symptom far distant from the seat of disease gives the sole clew that leads to a correct diagnosis.

It is a most mortifying as well as a serious error to assign as cause of pain in the knee some simple form of synovitis, and fail to detect an incipient coxitis; or to diagnose a sudden severe lancinating pain in the right hypochondriac region as due to cholelithiasis, and possibly operate for gallstones when simply dealing with a reflex pain caused by an attack of angina pectoris; or hastily to diagnose a daily hectic fever with slight amount of purulent sputum as an ordinary bronchitis, when a careful microscopic examination of the sputum would have disclosed the *Ameba coli* that came from a previous attack of dysentery, which, having caused an abscess of the liver with perihepatitis, finally ruptured into and produced an abscess of the lung; or to associate repeated attacks of epigastric pain and vomiting with simple catarrhal gastritis, when an examination of a twenty-four hour specimen of urine would have shown slight traces of albumin, with hyalin and granular casts, and thus enlightened the physician as to the true meaning of the uremic storm signals set up by an advancing interstitial nephritis.

Clinicians can not exercise too great care in establishing the reality of each concrete fact, whether positive or negative, that forms the basis of their bedside conclusions.

If the boundaries of the heart are asserted to be enlarged, or if a bronchial respiration exists at the base of a lung, or if it is positively affirmed that an empyema, for example, does not exist, or that a urinalysis proves to be negative, there must be no uncertainty of such premises, for thereon depends a conclusion that may be the means of saving or losing a human life.

I was recently confronted at the autopsy by a diagnosis proved to be wholly in error, simple because I did not pay sufficient heed to one of my major premises. On the following symptoms I had ventured a diagnosis of cerebellar tumor: Double choked disc, vertigo, cerebral vomiting, ataxia, increased and irregular respiration and pulse, loss of intelligence, difficult hearing and gradual muscular atony; urinalysis asserted to be negative so far as trace of albumin, casts or kidney epithelium. Signs of edema were absent.

The autopsy proved entire absence of any cerebral tumor. There was a slight cerebral edema, an acute hydrocephalus, and a chronic interstitial nephritis. Thus the symptoms of uremia were mistaken for cerebellar tumor because the evidence of a negative urinalysis was accepted from another, while there is no doubt a painstaking and searching examination would have given positive tests for albumin, casts, and possibly kidney epithelium, and thus at once would have revealed the true significance of the symptomatology.

Another source of error in diagnosis lies in the too hasty association of ideas. In a malarious district not every inhabitant with an enlarged spleen and an occasional fever necessarily has malaria; not every painter that comes complaining of cramps and obdurate coprostasis has chronic lead poisoning; not every cook that consults with reference to a hematemesis has a gastric ulcer.

Thus the knowledge gained by the occasional association of certain trades with certain diseases is directive

but by no means conclusive, and it is precisely in such cases that our analysis of the symptomatology and etiology of any specific case should be the more exhaustive and critical. These are the cases that demand shrewd judgment and draw on our largest resources if we are to give the proper values and deduce rightful conclusions.

The acquirement of the so-called "diagnostic glance" is solely obtained by a long patient schooling in this inductive method of diagnosis. It teaches us to grasp the important factors in any case and from them the lines of investigation that must be pursued and others that may be omitted for the want of time.

An abscess of the lung suddenly developing in the course of previous indefinite cerebral symptoms, as headache, somnolence, spasms, chills, and an irregular temperature, arouses at once a suspicion of lateral sinus suppurative thrombosis; whereas the same set of symptoms arising in a case of bronchiectasis, with the well-known drumstick fingers, a stinking sputum and hectic flush, should demand a thorough examination of the fundus of the eye for choked disc due to cerebral abscess.

Well-marked symptoms of indigestion, icterus, headache and extreme nervousness in a woman at full term would suggest acute yellow atrophy of the liver; but these same symptoms in a young despondent foreign girl of the working classes, instead of being a case of simple catarrhal jaundice, may be a case of phosphorus poisoning induced for the purpose of committing an abortion.

In emergency cases (particularly when coma is present) this well-developed "diagnostic glance" is of incalculable service. Here the physician must comprehend at a glance and act on premises rapidly if not too securely laid.

The work of the master in this respect is no trick of legerdemain, but the result of his thorough unerring knowledge gained through years of training in the inductive method of diagnosis and the fearless verification of those bedside conclusions at the autopsy. But humiliating, indeed, will be the experience of one attempting this rapid snapshot diagnosing who has not had the prerequisite bedside and postmortem training.

The failure thoroughly and systematically to examine our cases by the inductive method often leads to painful disclosures. The discovery of one lesion is no reason to cease searching for others, but on the contrary should be a stimulus for the discovery of complications or other independent primary lesions.

Among my autopsy experiments one pre-eminently illustrates the results of hasty clinical observations. A drunken man, run over by a wagon, had been brought into the hospital. After a hasty examination no lesion of a serious nature was diagnosed. A pleuropneumonia developed and the case was transferred from the surgical to the medical ward. Death intervened and the autopsy, performed by one of Europe's master pathologists, demonstrated a pleuropneumonia in consequence of twelve fractured ribs, six on either side. There was also found a complete fracture of one of the dorsal and one of the lumbar vertebrae, none of which lesions, according to the record, appear to have been diagnosed in life.

Although this represents an extreme case, nevertheless, reviewing my bedside and postmortem experiences, I can recall many instances occurring with painful frequency where eminent clinicians have been accused of the most egregious mistakes simply because pressed for

time, the overcrowded conditions of our hospitals prevented each patient from receiving the requisite care and attention his case demanded for a successful scientific issue.

This brings up a present burning question in regard to our hospital services: Why have we not more physicians on our hospital staffs; and why is not better and more scientific work demanded of each, together with quarterly or semi-annual reports accurately summarizing the work done in each department so that the profession generally may become a beneficiary? Not all are privileged to receive hospital appointments, but those denied such positions of power are none the less entitled to the full knowledge derived therefrom, not through the occasional spasmodic efforts of the few, but through regular complete reports stamped with official authority, detailing with equal impartiality and minuteness both the failures and causes thereof, as well as the commendable successes.

Public hospital appointments should be regarded as positions of trust, and the scientific emoluments resulting from such trusteeship as the common property of the entire profession. Only men especially endowed with natural talents, education and executive ability, actuated by a true love of science rather than personal preference, should be chosen as the profession's trustees to such positions.

Furthermore, as evidence of their right and fitness for such trusteeship original scientific contributions gleaned from their individual fields of labor should be demanded of them by the general profession as its eminent right and privilege.

The satisfactory accomplishment of such scientific work in our overcrowded charity institutions would require a greater number of workers in proportion to the patients so that closer attention to detail might be given. Such an increase of workers, for harmony's sake and better scientific results, naturally would necessitate the abandonment of our present antiquated hospital methods for newer and more centralizing ones. Each ward would require one chief of staff permanently appointed and empowered to apportion the work and to summarize the results therefrom for use by the general profession, instead of each attending physician assuming this rôle. Not every one is fitted to act as administrative head.

The period of service would need extension, particularly in chronic cases and those of perverted metabolism, for often to-day in our public hospitals unfortunate results follow the bi-monthly and tri-monthly changes of our attending physicians, who often differ in matters of diagnosis and treatment, with the result that the patients suffer.

The rarity of autopsies in our country and the lay prejudices against them emboldens clinicians to formulate unwarranted and speculative conclusions and to be content with diagnoses that would not be tolerated if they knew that a thorough autopsy must be held in case of death. Our hasty, superficial methods sometimes lead to results by which the profession must feel humiliated. For example, take this instance, reported in the *New York Sun*, Aug. 17, 1907:

HOSPITAL CENSURED.

CORONER'S JURY SAYS PATIENT DID NOT GET PROPER TREATMENT.

Coroner Harburger and a jury held an inquest yesterday into the death of David Rodesky, the painter who died in the insane asylum on Ward's Island on July 29 from blood poisoning.

Rodesky fell off a surface car and injured his foot. Through neglect the wound became infected. He was sent to Bellevue

Hospital and then to the insane asylum. The jury found this verdict:

"We censure the Manhattan State Hospital and Bellevue Hospital for failure to give the deceased proper treatment while in their care, and recommend that the Manhattan State Hospital increase the number of their attendants and adopt a system of reports to show the exact status of every patient at all times, making it possible for the authorities to ascertain at any time who is in charge of a patient."

Does it not seem wiser for the profession to demand a higher grade of work than to chafe under the slurs and humiliating criticisms of a public too often outraged by the unfortunate results occasionally following the independent hasty observations of the self-overburdened few?

Considering the difficulty of obtaining correct data as to the anamnesis and the status *præsens*, it is not strange that even experienced physicians occasionally commit serious errors because, through carelessness, overconfidence or lack of time, they pay too little respect to these premises. Nothnagel admitted that he felt himself quite fortunate when he proved to be correct in 60 per cent. of his diagnosis of difficult cases. It should not be forgotten that his every bedside conclusion was recorded and in case of death had to receive the judicial stamp of a rigid autopsy. Under similar conditions it is probable that not many clinicians would improve on this record.

This brings us to the consideration of one of the important topics of this address, namely, the value to both laity and profession of diagnosis when reviewed by the autopsy.

Suppose under the influence of a strong public sentiment it was the prevailing custom for each case of death to be examined as to the cause thereof. What must be the ultimate and inevitable effect of such a practice? Would it not quickly expose the charlatan with his obnoxious nostrums and offensive advertising, lay bare the false claims of the numerous pseudo scientific delusions under which yearly many lives ruthlessly are sacrificed, and weed out the unfitted by natural selection under the operation of that most inexorable of all laws?

Such a custom should be in force to-day, at least with respect to all patients dying in our charity institutions. In private practice public sentiment should be educated to the point of demanding an autopsy at least in all cases that defy an explanation free from speculation. In such cases the necessity of an autopsy is a positive duty, for the living are entitled to those secrets of the dead which alone can elucidate morbid phenomena. This is the sole invaluable service the dead can render the living. The laity becomes the great beneficiary of the raising of the professional standard which would result.

Pathologic anatomy is the force to-day disturbing the contentment and dry-rot in medicine engendered under the former régime of empiricism. It teaches us the abundant recuperative resources of Nature, thereby more and more emphasizing our own limitations and demonstrating the truth that all our therapeutics should be simplified and founded on more rational scientific bases, and employed only to assist Nature in overcoming insurmountable obstacles. This is neither hopeless therapeutic nihilism nor *do nothing* irresponsible fatalism, but rather the advocacy of a still closer study of the inimical forces about us and a more singular purpose in employing those of our protective agencies tried and not found wanting. Science to-day with its ever-increasing exactness demands that the intelligent use of any drug shall be the same as the skilful conservative use of the scalpel.

1. Darwin: Law of the Survival of the Fittest.

Pathologic anatomy is no respecter of persons, "pathies" or "isms," but an impartial moderator in all scientific controversies over somatology. It is pathologic anatomy that teaches us the transcendentalism and futility of high potencies; that curbs the reckless extravagant use of the prescription blank; that disillusionizes those misguided mental therapists who attempt cures in defiance of natural law and order. In a word, it is pathologic anatomy that levels the barriers that divide into schisms what should be one great united fraternity, and compels all schools, standing shoulder to shoulder on a common basis, to recognize that the science of medicine is subject to that one great universal law which controls all other phenomena in the natural world—the law of cause and effect.

If we are to remain in darkness, cloaking our mistakes with the mantle of vain assumption, as we frequently do to-day in the absence of a verifying autopsy, then let the present deplorable indifference continue. But if we would seek the light, surrendering self to science by thinking harder, speaking less frequently, but fearlessly and willingly facing our conclusions when spoken, thus having a little less of the personal factor in our work and a little more earnest searching for the hidden truths of medicine; if we would advance and maintain our noble profession in a position commanding the high respect and sincere veneration it should, but unfortunately often does not, receive to-day, as evidenced by the numerous pseudo-scientific "isms" flourishing among us; if we would protect both the laity and ourselves from our ever-recurring mistakes—thus silencing the criticisms and aspersions too often deserved, that our faith-curists and other enemies cast on us—then, harmoniously working together, clinician, pathologist and layman, let us welcome the invaluable knowledge to be gleaned solely from the respectful scientific autopsy of our revered dead.

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TYPHOID FEVER.

A SUMMARY OF 148 CASES WITH REFERENCE TO THE EFFICACY OF THERAPEUTIC FASTING.

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Autointoxication and inanition are the Scylla and Charybdis of a typhoid patient, and the physician who can pilot the charge through the narrow channel of safety, should be accorded a high degree of therapeutic skill.

For the treatment of typhoid fever a specific remedy has not been discovered, and the consensus of opinion is that medicines have but little more than a contributory effect in the management of this disease. So the drug treatment may be eliminated altogether from this discussion.

The process of using bacterial vaccines for hastening the process of immunization by increasing the phagocytic property of the blood, thus raising the opsonic index, a process which also takes place in a normal case of typhoid fever, is rational and scientific and deserves a more extended application. In other words, the processes of Nature are expedited by this method.

* This paper, read at the Fifty-ninth annual session of the Medical Association of Georgia, Fitzgerald, April 15, 1908, is a continuation of some studies, a report on which was read at the New Orleans session of the American Medical Association, and published in THE JOURNAL, July 11, 1908.