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The Problem Method of Medical Teaching

The Repercussion

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In the MEDICAL JOURNAL AND RECORD for June 17, 1925, I published the preliminary article entitled The Problem Method of Medical Teaching. It may be recalled that the opening sentence, and the keynote, was as follows: "At no time does one concentrate so thoroughly on the available data as when endeavoring to attain the solution of an absorbing problem, and at no time does one so take cognizance of pertinent facts as when equipping oneself to meet a definite situation." From this postulate I endeavored to outline the principles of a medical course consistent with such a postulate. Inasmuch as the medical course is essentially a vocational training, with such additional cultural values as may be incidental, it was suggested that the medical student would do best work if his studies all centred on or about actual clinical subjects. No attempt was made to suggest that the medical student should essay diagnosis until firmly grounded in the fundamentals, but it was contended that the teaching of these fundamentals might well be in relation to definite clinical problems.

The method as outlined in the preceding paper was that the student should be brought first into contact with patients carefully selected from the hospital wards and clinics so as to furnish a carefully graded series. The manifesting illness would be briefly discussed by the attending clinician, and the students then told to seek in their laboratories of anatomy, histology, pathology, and physiology adequate fundamental reasons for these particular manifestations; and when these reasons were found to return to this clinic for further discussion. A similar graded course covering the work throughout the present four years would be required.

In the preceding preliminary discussion no attempt was made to outline such a course; the principles only of such a course were there offered. A sample of the nature of the work (an assumed heart case) was presented, but solely to make more clear the nature of the argument.

Realizing the many difficulties that stood in the way of adoption of such a plan, it seemed best to ascertain the opinions of those presumably most interested. So reprints of the article, together with a brief printed questionnaire, were sent (with an addressed stamped envelope enclosed) to college presidents, deans of

medical schools, professors of medicine, surgery, and pathology, presidents of all state medical societies, secretaries of all state medical societies, some general practitioners, and a few selected miscellaneous public men. Each one was requested, after reading the article, to express briefly his opinion as to the principles involved; the expression of opinion could be made by placing a mark adjacent to any of the five questions, to wit: 1. Do you unqualifiedly approve of this method? 2. Do you qualifiedly approve? 3. Do you qualifiedly disapprove? 4. Do you unqualifiedly disapprove? 5. Do you think the method feasible (or not)? Finally, what are your criticisms?

Three hundred and sixty-eight reprints with accompanying cards were sent out; 116 were returned, a percentage of return of 31.8. This, I am told, is a high percentage for questionnaire returns; I am constrained to believe, however, that there can be but two reasons why I did not receive one hundred per cent. returns; either the men addressed who failed to reply did not feel competent to make reply (as some admitted), or else they were more interested in something else.

The relative interest may be somewhat indicated by the following table:

	Number Sent Out	Number Returned	Percentage
College presidents	44	3	7
Medical deans	52	26	50
Anatomy professors	33	11	33
Surgery professors	33	11	33
Pathology professors	33	14	42
Medicine professors	33	9	27
Pres. med. soc.	54	13	24
Sec. med soc.	54	16	30
General practitioners ...	24	5	31
Miscellaneous	8	8	100
Total	368	116	31.8

The various attitudes of those who replied are fairly clearly indicated in the following table:

	Unqualifiedly disapprove	Qualifiedly approve	Qualifiedly disapprove	Unqualifiedly disapprove	In doubt
College presidents ...		2		1	
Medical deans	1	9	9	6	1
Anatomy professors..		5	2	4	
Surgery professors...	3	4	1	3	
Pathology professors	1	4	5	4	
Medicine professors.		6	1	2	

sick man, a sick brother, a fellow human being, and that he must treat him with all possible kindness and consideration. Moreover, it is the physician's duty by precept and example to encourage such consideration on the part of nurses, and must resist any tendency he may observe in them to make their work mechanical or routine. It is his duty to put forth his best efforts to help the patient from a social and economic point of view as well as a scientific; and he may not do his full duty by neglecting these considerations.

Physiology of the Sympathetic Nervous System in Relation to Certain Surgical Problems.—A. Forbes and S. Cobb, of Boston, stated that on the basis of a theory that a special function, designated "plastic tonus," in skeletal muscle depends on sympathetic nerve fibres, believed to innervate some of the muscle fibres, the operation of ramisection had been advocated for the relief of spastic paralysis. Testing the physiological basis of the theory had been tried by measuring decerebrate rigidity with spring balances in cats decerebrated at varying intervals after removal of the sympathetic innervation of the fore leg or hind leg on one side. The difference between the operated and unoperated sides was usually so slight compared with chance fluctuations of rigidity that no significant change can be ascribed to the operation. This fact, they said, together with the failure of the conception of a special plastic function to harmonize with the known properties of nerve and muscle, rendered unsound the physiological basis for this surgical procedure.

The Connotation of Constitutional Psychopathic Inferiority Without Psychosis—A Study of Five Hundred Diagnoses.—Dr. James H. Huddleson, of New York, said that twenty-one attributes, separately or in various combinations, were found to have conditioned the diagnosis in these cases. The most frequent were forms of emotional instability, seen in sixty-three and one half per cent. of case histories bearing this diagnosis. These and other psychopathic characteristics were necessarily shown to be fundamental traits, not acquired in later life, to justify the diagnosis. The latter was best understandable as a symptomatic, not a pathological, expression, the pathological basis for all such symptoms being too much in dispute. While the term criminalism may be occasionally employed to define a symptomatic group under the head of psychopathic inferiority, it so readily lends itself to construction as a pathological or quasipathological conception—not yet justified by generally accepted data—that it would better be omitted from a nomenclature of diseases.

SECTION ON DERMATOLOGY AND SYPHILOLOGY

CHAIRMAN, DR. FRED WISE, OF NEW YORK.

SECRETARY, DR. JAMES H. MITCHELL, OF CHICAGO.

Bullous Ichthyosiform Erythroderma: Report of Two Cases.—Dr. William H. Goeckerman, of the Mayo Clinic, Rochester, Minnesota, reported two cases of bullous ichthyosiform erythroderma. The observation of these cases permitted of some plausible deductions relative to the developmental mechanism responsible for the production of bullæ

in an ichthyotic skin. The first case especially seemed well adapted to demonstrate the possibility that these bullæ might be essentially, at least in some cases, the result of an abnormal sweat retention. The second case was especially striking because the eruption of bullæ was much retarded by x ray treatments.

The author's observation of these cases as to their clinical behavior, seemingly so similar and yet different in many respects, suggested to him that we were dealing with this entire group of so-called ichthyosiform erythroderma with varying degrees of developmental disturbance throughout the entire skin of such individuals, whether this could always be demonstrated histologically or not. This, he said, in combination with a careful review of the literature made him feel that all the various forms of ichthyosis and many other dyskeratosis were not different entities, but genetically the same disturbance. The difference, for instance, between a simple asteatosis and an ichthyosis congenita was one of degree only.

Critical Investigation of the Relation of the Endproducts of Protein Metabolism to Eczema and Kindred Disorders.—Dr. Jeffrey C. Michael, of Houston, Texas, said that the present investigation was undertaken to determine the value of the hypothesis that hyperuricemia was associated with, and probably was an etiological factor in many cases of eczema and pruritus cutaneous. This old hypothesis has received considerable support recently by the findings of Schamberg and Brown and others. The study was carried out in four ways: 1, blood chemical estimations; 2, intracutaneous injections; 3, intracutaneous injections plus comparative photodynamic tests and 4, intravenous injections of urate solutions. Most stress was laid on the uric acid. Urea and creatinin were added to complete the triad of protein endproducts. In all, approximately 120 persons have been tested, only two intravenous injections experiments have been performed, about half of whom were sufferers from eczema or pruritus cutaneous.

The results were essentially negative, and the conclusion reached that uric acid, urea, and creatinin play little, if any role, in the causation of these disorders.

Sporotrichosis, an Occupational Dermatitis.—Dr. Harry R. Foerster, of Milwaukee, Wis., said that sporotrichosis, an infectious granulomatous disease of worldwide distribution, has shown an endemic occurrence in certain parts of the temperate zone, particularly in the Mississippi river basin. He stated that it is a disease peculiar to outdoor workers most of the cases reported in the United States having occurred among farmers, horticulturists, and the like. Of 148 American cases reviewed, 111 showed primary involvement of the distal portion of an upper extremity, and most of the infections caused disability for work. Fourteen cases have been reported among employees of a Wisconsin tree nursery, of whom ten definitely acquired the infection from the barberry shrub. The latter shrub, having a distribution in nature similar to that of the sporotrich, is considered of importance as a host of the organism and as a possible disseminator of the disease. The occupational hazards and disabilities peculiar to sporotrichosis entitle it to consideration among occupational dermatoses.