Baruch (S.)

HYDROTHERAPY IN TYPHOID FEVER.

BY
SIMON BARUCH, M.D.,
OF NEW YORK.

FROM
THE MEDICAL NEWS,
April 25, 1896.

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[Reprinted from THE MEDICAL NEWS, April 25, 1896.]

HYDROTHERAPY IN TYPHOID FEVER.

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THE MEDICAL NEWS of February 8, 1896, contains an article on this subject, which may mislead by its *ad captandum* arguments, and which it may therefore be profitable to analyze and discuss in the interest of therapeutics. The author does not claim any practical experience with the Brand method, on the contrary, he "confesses to a prejudice against the immersion treatment of typhoid fever." But he is correct in the statement that "*an overwhelming majority of the profession is against the method.*" Being convinced by earnest investigation for five years that "the majority of the profession" is, as a rule, biased by the same ideas and prejudices, which pervade the article, and as a proper presentation of the latter may serve to dispel some of the mist that seems to envelop the ordinary conception of the *rationale* of hydrotherapy, it may be profitable and interesting to analyze this author's views and conclusions, and extract their logical gist, without wearying the reader with polemics.

The author starts out with the statements that, with rare exceptions, at "present all typhoid patients in hospitals in this country are treated by immersion, and all the private patients by methods that are hydrotherapeutic only to the extent of cool sponging; and that, although most expressions of opinion heard in societies or read

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in journals, favor the Brand treatment, a secret ballot would show an overwhelming majority of the profession against this method." This may be true; but it is not reasonable to presume that men like "*Osler and other eminent clinicians*," would "enthusiastically indorse" a method of treatment that has so little to commend it. These gentlemen mold the minds of the rising generation of physicians; they have large clinical material under the strict supervision of intelligent assistants, and they may therefore be accepted as reliable guides to the general practitioner. The cause of the overwhelming "secret ballot," which would be cast against the Brand method by "practitioners in the small towns," is not to be sought, as the author curiously enough claims, in their having "not only relatively, but absolutely better opportunities for studying typhoid than city physicians;" but in the fact that they rarely have the opportunity or the facilities for the bath treatment, and that they are generally prejudiced against it by reason of inexperience. That it is impossible to form a correct judgment of the comparative value of two methods of treatment unless both are practised under approximately similar conditions, goes without saying.

Since 1889, only three *outspoken* opponents have been encountered besides this author, and the first of these has seen the error of his way. These gentlemen did not claim to have any personal experience with the method. They frankly expressed a prejudice against it, just as the author has done. I would not impugn the sincerity of the

advocates on the adverse side, but I must protest against deductions not drawn from actual experience. That one positive witness with experience is worth all the theoretical and sentimental negations that may be marshaled will be conceded by the fair-minded reader.

The author concludes from his observations that "bathing oftener than twice daily would produce depression in all but the most robust; that fifteen minutes is the proper limit of the bath; that boys often grow livid, and are enfeebled by bathing, etc." The reader must decide for himself how far these conclusions may be accepted. Then he may be able to answer the author's question. "Can it be expected that the typhoid fever patient would receive all the benefit from immersion that a healthy person gains and be immune from the possible disadvantages? The advocates of immersion practically answer this question in the affirmative," says the author. This seems to be of slight moment, however, for he simply brushes it aside and proceeds to make a comparison between the Brand bath and the swimming exploits of healthy persons from four to seventy years of age. He argues that the former must be injurious because "it is as cold and as long-continued as the latter, and is repeated two to four times as often as that which a healthy swimmer of average vigor can endure without depression; the typhoid patient has not the benefit of exercise during or after the bath," etc. "The fact that depression follows a course of bathing without obvious chilling (in the

healthy), is well established" in the author's mind. Such is the drift of his argument.

Even if the proposition regarding the depressing effects of a course of bathing in health, could receive acceptance, it would be illogical to apply observations made on boys (the majority of his subjects), who are apt to exhaust their reactive capacity by pranks, before, during, and after swimming under a hot sun, in the open air, and in water of 70 to 80°, to fever patients, most of whom are adults, who are quietly placed into the tub, who are well rubbed by two attendants, who are in addition stimulated by brandy before the bath, and well dried and wrapped up after it. Such a comparison needs but to be stated to be its own refutation. Moreover, if there is anything positively established it is the tonic effect upon the heart of a Brand bath *properly administered.* The pulse almost always becomes less compressible, less frequent, and loses its dicrotism; the respiration is deepened and slowed. All this was illustrated on page 224 of the MEDICAL NEWS, February 22, 1896.

The same nonchalance with which the author dismisses the denial of unfavorable effects of the Brand bath by the advocates of the latter, characterizes his denial of the value of the "magnificent accumulation of statistics." He reminds the reader of the misleading character of numbers, and of the tendency of advocates to doctor the returns in the interest of preconceived notions, etc. In his zeal for "conservatism," he does not hesitate even to "doubt the good faith of some

who practise immersion in hospitals, but who do not urge it upon their private patients." That all this is written in lieu of actual evidence, is patent from the fact he frankly admits that "it is not possible at the present time to refute the case reports of hospital attendants, nor to show that the *post hoc, ergo propter hoc* fallacy has been committed."

That figures may mislead is doubtless true; but it happens that there are some statistics in typhoid fever that cannot mislead. These were not made by the originator of the Brand method, but by a man, occupying a high military position, Dr. A. Vogl, the chief of the medical staff at Munich.

Without entering into details, this painstaking search of the records of forty years of a hospital governed by strict military discipline shows, that a reduction of mortality from an average of twenty per cent. under all kinds of treatment, and during epidemics of different intensities, to 2.7 per cent. under Brand baths. Dr. Vogl summarizes these excellent comparative statistics as follows:

DIVISION II.

Cases.	Treatment.	Mortality.
5884	Expectant, 1841–78,	20.7 per cent.
2841	Expectant and bath combined, 1868–81,	12.2 per cent.
702	Strict cold baths and antipyretics, 1877–87,	7.6 per cent.
144	Strict cold baths and less antipyretics, 1882–89,	4.1 per cent.

DIVISION I.

428	Strict cold baths, 1880	2.7 per cent.

Excluding all other statistics these alone protect the Brand method against carping criticism, unfounded skepticism, and baseless prejudice. By

these statistics carefully studied, I was convinced of the folly of my own prejudice; there cannot be a reasonable doubt cast upon a military record of eight thousand cases, prolonged through forty years. In the "Uses of Water in Modern Medicine," page 109, Volume II, I have presented a table of comparative statistics which furnishes an instructive view of this whole question. To this may be added the following statistics, presented by the translator of my book in the German edition.

FROM GERMAN SOURCES.

	Mortality.
Jürgenson, Tübingen, under expectant treatment,	22.1 per cent.
" " faulty bath treatment,	7.1 per cent.
" " strict " "	1.8 per cent.
Brand, Stettin, " " " "	3.5 per cent.
Leichtenstein, Stettin, " " " "	5.4 per cent.
Ratjen, Hamburg, " " " "	4.0 per cent.
Drasche, Vienna, " " " "	9.3 per cent.
Before " " " "	16.2 per cent.

FROM FRENCH SOURCES.

Tripier & Bouveret, Lyon, before bath treatment,	25.0 per cent.
" " " under " "	7.5 per cent.
Richard, in 38 cases, " " "	5.2 per cent.
Jubel-Renoy, expectant treatment,	14.2 per cent.
collective report under bath treatment,	7.3 per cent.
own cases under strict bath,	4.7 per cent.

FROM AMERICAN SOURCES.

Dr. Kelly, Philadelphia, before bath treatment,	17.0 per cent.
after introduction of "	4.5 per cent.
Dr. Elliot, Philadelphia, before bath "	24.0 per cent.
after bath treatment, since 1891,	7.4 per cent.
Dr. Thompson, New York, before bath treatment,	19.0 per cent.
after " "	7.0 per cent.

Among the remarkable italicized propositions submitted in the author's article is No. 4: "The cold bath removes comparatively little excrementitious matter from the body, it checks the tendency to sweating and throws the flow

inward to organs already infiltrated or irritated by toxic principles." This *ex cathedra* statement is not supported by any evidence furnished, either by the author's observation or that of others. And it is directly contradicted by the exact experiments of Roque and Weil, who found that the urotoxic coefficient of the urine in patients suffering from typhoid fever is decreased; that while the coal tar antipyretics still more diminish it, the cold bath, increases it very materially—threefold in some experiments. That the blood is not "thrown inward" as the author fears,[1] is proved by the ruddy hue of the skin of the patient when emerging from a properly administered Brand bath. "In conclusion let me say that I am not writing to support a theory, nor to assail the advocates of an opposite theory, but to elicit the truth. I am open to correction and ready to acknowledge an error." These words of the author I heartily re-echo, for if any equally successful method of treating typhoid fever were devised, I would gladly abandon the justly unpopular cold bath. Until this is done, it is our bounden duty to save lives by overcoming the prejudices and objections of its opponents.

The enthusiastic advocacy of the Brand bath with which I am credited is not due to the recognition of its merits only. A large share is due to the fact of which Brand himself has jocularly reminded me, viz., that my prejudice against it found

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[1] A recent editorial in the *Philadelphia Medical and Surgical Reporter*, quoted in the *Medical Record*, reiterates this fallacy, which cannot be too earnestly contradicted.

expression in the Academy of Medicine, where I said in 1887, "The cold bath may be adapted to the German soldier, but it is too severe for the average American citizen." Having myself been a doubting Thomas, and being convinced that I was in error, I am the more desirous of making amends.

In conclusion it may be of interest to quote from a recent letter of Dr. A. Vogl, the medical director of the army at Munich, whose statistical records have been quoted above. Under date of the 20th of February, Dr. Vogl writes me: "I regret very much that the Brand method is not yet universally acknowledged, especially as none of the opponents have thoroughly tested it. We use it in the army whenever opportunity presents, with the best results, never over four per cent. mortality. Your recognition of its value is gratifying. The adverse position of the profession toward hydrotherapy injures the respect for our science; it would not otherwise be possible that so crude a water quack as 'Father Kneipp,' could maintain his position. In many desperate cases this empiric has obtained successes, which cannot be denied, and in cases in which physicians had tried all medicinal agents, but not even a cold compress."

In this country too, the medical profession will lose much vantage ground, if it continues to neglect hydrotherapy in chronic diseases, in which its effect is just as striking as in typhoid fever. How much more favorable the results would be if physicians would give attention to the *rationale*

and applications of water in the treatment of disease, and not entrust it, as is but too frequently is done, to bath attendants and nurses, who possess only the most superficial, crude, and mechanical knowledge of the subject? Hydrotherapy should be applied in chronic diseases as it is in typhoid, under the frequent supervision of the medical attendant. The technic should be adapted to the condition of the patient and the indications of each case, which are liable to change, and which cannot be appreciated by bath attendants, no matter how familiar they may claim to be with the treatment. These water-cure establishments, not under skilled medical supervision, should be avoided. This may be the more readily done now, because several institutions exist in the city and are beginning to spring up in other medical centres, in which not alone the well-to-do, but also the poor may obtain a judicious hydrotherapy *under supervision of physicians.* The importance of an exact technic was emphasized in my paper before the Philadelphia County Medical Society, a report of which may be found in the MEDICAL NEWS of February 22, 1896.

The Medical News.

Established in 1843.

A WEEKLY MEDICAL NEWSPAPER.

Subscription, $4.00 per Annum.

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OF THE

Medical Sciences.

Established in 1820.

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