STILLBIRTH.[1]

BY

GEORGE BYRD HARRISON, M.D.,
Washington, D. C.

To the subject of this address, viz.. "Stillbirth," I have been led to ask your attention from a genuine conviction of its real importance and of our moral and professional obligation to consider it more closely and carefully than has hitherto been our wont. Had I, however, fully realized in how much perplexity and uncertainty the study of its simplest problems is involved, and how futile the elaboration of them has heretofore been, I would have been almost tempted to wish that I myself had been "stillborn" before attempting to discuss even a few of the most prominent features of the subject. At any rate, I promise to spare you and be very brief, for it is a matter upon which I cannot afford to be either lengthy or dogmatic.

The mortality of intrauterine life is greater than that of any other period of human existence, much greater than of infancy, childhood, adolescence, or mature age. In this our own city the records of the Health Office show, for a period of twelve years ending with the last census year, an average of over eleven stillbirths per one hundred labors. When we consider how small a proportion of fetal deaths is returned in comparison even with the number of live births reported, we shall appreciate how enormous is the actual list of these untoward events. An eminent

[1] President's annual address, delivered at the meeting of the Washington Obstetrical and Gynecological Society of October 2d, 1896.

obstetrical authority has recently estimated that one abortion occurs for every five labors; and he has been probably exceedingly conservative in this calculation.

Many of the causes which underlie such cases of stillbirth as are referable to the domain of pathology, leaving out of view all those which are induced accidentally, justifiably, or criminally, are well known. (I say "many," for all will appreciate that a full list is impossible, as it would embrace maternal and paternal diseases, to say nothing of conditions incidental to deviation from the norm in the physiological processes and structures of fetal growth.) Each author upon reproduction enumerates those with which he is familiar; one, as it were, in a sense, supplementing the list of the other, but as frequently guilty of omission as addition. So far as I know, however, no reliable systematic arrangement of the commoner causes, in order of frequency, has been arrived at.

No one, of course, doubts that the ubiquitous monster, syphilis, is an easy leader in the etiological race, but by how many lengths it is impossible, in the present state of our knowledge, to say with accuracy. Public vital statistics are of almost no use in our researches in this direction. In the last census year, however, ending May 31st, 1890, the health reports of some of our cities were harmonized—*i.e.*, the statistical years being different in each, the clerical force of the national office brought the data within similar limits, so that some sort of comparison could be instituted. I have succeeded in getting the comparative returns of only six great Eastern cities—New York, Brooklyn, Boston, Philadelphia, Baltimore, and Washington—and of these only in reference to a few items of interest. While the sources of error and inaccuracy in such returns are palpable, they undoubtedly possess a certain degree of value, and in process of time may be expected to contribute very largely to our actual information. From the reports referred to we ascertain that during the census year there occurred in the cities of Boston and Philadelphia, per 100,000 of population, 134.68 and 138.21 stillbirths respectively. In the latter city, Philadelphia, the records for six years previous showed an average of 117.68 per 100,000 annually. Unfortunately, in Boston the statistics extend no further back than the census year. In both cities the proportion for the colored population, as might be expected, was much greater than for the white. This disproportion of colored stillbirths to white accounts for the fact that for the same year Baltimore returned, on the

same scale, only 194.15, to 224.16 in the District of Columbia—the fact being that in Washington the number was actually less for the white population than in her sister city, Baltimore, but much larger for the colored. The great cities of New York and Brooklyn, with their large immigrant influx, might naturally be expected to exhibit heavily; and such is the case, especially in New York, that city showing for the census year 217.91, and for the six years previous 225.41 per annum, per 100,000; Brooklyn, for the census year 165.31, and for the six-year period 179.01 per annum. Here an anomaly presents itself: New York returning more for colored than white, Brooklyn *vice versa*—the most plausible explanation being that the colored residents of Brooklyn, the quieter city, would naturally represent a better class of that excitement-seeking race.

The records of (it is to be regretted, only three of) these large cities have been so arranged and compiled as to show a percentage far more useful and instructive—viz., the proportion of stillbirths per 100,000 women of the child-bearing age (15 to 45), with the nativity of those mothers. I have constructed a comparative table of these three (Boston, New York, and Brooklyn), which I am sure will prove of interest to you:

PER 100,000 MOTHERS, 15 TO 45.

Nativity.	Boston.		New York.		Brooklyn.	
	White.	Colored.	White.	Colored.	White.	Colored.
	463.14	765.20	773.22	850.32	619.58	290.36
United States	608.06	....	1,376.12	....	1,036.03	....
England and Wales	392.41	....	579.28	....	234.88	....
Ireland	292.80	....	356.51	....	288.22	....
Scotland	358.04	....	287.80	....	336.96	....
France	418.41	....	561.12	....	231.12	....
Germany	344.20	....	539.92	....	549.66	....
Russia and Poland	1,086.96	....	1,164.51	....	2,690.58	....
Canada	485.22	....	658.35	....	392.93	....
Scandinavia	597.50	....	585.06	....	448.43	....
Hungary	1,694.92	....	1,489.59	....	386.10	....
Bohemia	2,173.91	....	1,064.46	....	No report.	....
Italy	1,238.67	....	2,059.74	....	1,665.99	....
Other foreign countries	495.66	....	770.12	....	175.75	....

This applies to the census year, but does not describe the "six-year period." The preponderance of stillbirths amongst natives

of Eastern Europe and of Italy, as exhibited in this table, is very remarkable; while the proportion in Americans born in the United States and Canada is astonishingly large, that of French, Germans, and British Islanders being exceedingly small by comparison. The low record for those of Irish birth is very noticeable and noteworthy.

The relative harmony and consistency of the figures returned by these three great masses of humanity, "gathered of every kind," points to something more than mere coincidence. Granted that the tenement districts of the great cities are crowded with representatives of precisely these countries which chiefly swell the lists under consideration, and that their squalor and misery contribute largely to the total results, what explanation can we give for the fact that natives of our own land, supposed to know how to care for themselves and to have acquired better facilities for so doing, are found to occupy so conspicuous a place in the "upper third" of statistics of this character? If the facts be not as indicated we should bestir ourselves to accumulate more evidence, so as to establish the truth in our favor.

Realizing that some sort of order of precedence might be formulated for the more ordinary causes of stillbirth cases as reported to these various health offices, I recently addressed a letter to the respective bureaus of the six cities named, asking for the relative number of fetal deaths attributed by the certificates returned for the census year to each of the various causes specified therein. To this circular letter I received prompt and courteous replies from all the offices with the exception of Baltimore. A second application to that city shared the same fate as the first.

You observe that from our own Health Department alone is there a scintilla of information to be derived. In all the other communities interrogated the question why the vital spark has left this horde of human conception in such untimely fashion is absolutely ignored. However imperfect the effort, we have reason to congratulate ourselves that the health authorities of this city are earnestly seeking a cause for every stillbirth occurring in our midst.[1] We have in this at least a basis and starting point for investigation on a much more extensive and thorough scale. A careful scrutiny of the facts and figures presented is not flattering to professional pride, however. In the large majority of cases conditions resulting from disease

[1] Beginning with Health Officer Townsend.

are alleged as causes rather than the diseases themselves; out of 282 certificates given by physicians, only *four* fetal deaths are attributed to syphilis.

It is, then, apparent that under prevalent methods (which really amount to no methods at all) the records of health offices at present give small promise of increasing to any material extent our scientific knowledge of this exceedingly valuable subject. Public returns call for and involve personal identification, and it is not compatible with professional honor, when disclosing the whole truth necessitates betrayal of sacred confidences, to make a thoroughly candid report. We must devise a better plan of systematic inquiry. It would seem that no more appropriate or feasible work than this could be undertaken by a Society like ours. Our membership is large enough for comprehensive observation, and so select as to insure faithful and conscientious records based upon actually scientific research. Every important hospital of this great city—notably those engaged in obstetrical and gynecological work—is represented in our membership. Our opportunities for minute pathological investigation are unequalled in the land, and the same is true as to literary research. The exceedingly important point may be added that here the most complete work can be accomplished without expense to the individual investigator. The subject fairly "bristles" with questions of interest and value. For example:

In spite of our great progress in syphilology, the relation to our subject of that dread scourge (which is loosely alleged to be responsible for five-sixths of all fetal deaths) has been by no means thoroughly developed. There are many questions yet unsettled, though of bed-rock importance. The possibility of infection of the fetus, without implication or intervention of the maternal system, through the spermatic particle alone, is denied by some very able and prominent observers. The date during pregnancy at which the disease acquired by the mother in acute form is no longer capable of affecting the fetus in utero, has not yet been ascertained, nor yet the actual proportion of deaths in relation to the period of intrauterine life at which infection takes place. Again, the evidences of syphilis in the dead-born and its appendages are not exhaustively taught, nor always appreciated by us. Thanks to modern gynecology, those subacute or chronic conditions of the endometrium which formerly swelled the list of "habitual abortions" are now recognized and relieved beforehand in very many instances.

Fatty degeneration of the placenta, which is so often present in premature births (and undoubtedly in many instances has causative influence), is almost universally considered secondary to, and consecutive upon, fibroid change. But we may be pardoned for daring to question this. Why may not a condition of the mother which is expressed during gestation by undue deposition of adipose in her various tissues be shared by the fetus in utero? The possibility of this occurring—*i.e.*, of fatty placenta being of primary rather than secondary origin—has been suggested to me in the case of one of my own patients quite recently; and I have found that others agree with me in entertaining this hesitancy to accept the usual verdict.

The law, if such there be, which regulates the permeability of the materno-fetal septa by the respective germs of the various diseases attributable to microbes, is as yet a sealed book. It is certain that some appear to pass with great ease from mother to fetus, others with more or less difficulty. The germ of tuberculosis, for example, we have reason to believe, does occasionally cross the boundary, but very unusually. Eighteen months ago a patient of my own (multipara) gave birth to a well-formed, well-nourished infant (dead) within a few days of term. The mother was far gone with tuberculosis and died in about six weeks. I got permission to examine this fetus, and the autopsy and minute inspection were made for me by Dr. Charles L. Minor, whom you all know as an accomplished medical man and bacteriologist. His report was absolutely negative. Yet only quite recently have cases been detailed before our own Medical Society in which the bacilli were found beyond the possibility of a doubt. These contrary instances are but illustrations of common experience amongst bacteriologists and minute pathologists.

The influence of malaria in inducing premature birth and fetal death is well known, yet the absence of scientific and carefully noted observations is very conspicuous. The accepted germ, being of plasmoid character, might be expected to wander actively and readily, and such seems to be the case. Its abortifacient influence may be exerted by the specific poison directly, or by hyperpyrexia, or by the usual remedy employed for its arrest—viz., quinine. Now, although we have the sanction of Tarnier to use this drug in all cases, inasmuch as the disease unconquered will probably do the work of emptying the womb if we do *not* employ it, the question admits of profitable discussion. If the salts of cinchona were alone efficacious

in this disease the theory would stand. But such (providentially) is not the case. Nature rarely leaves her creations necessarily unprotected. There are other agents which suffice to kill the malarial poisoner, whatever he may be. The fields and forests of our own vicinity contain several trees and plants abounding in antimalarial properties. The common mullein will sometimes succeed when quinia does not, "and there are others." The laity are in our day instructed often beyond what is convenient. They know this property of quinia as well as we do, and a physician is liable to criticism, just or unjust, whose patient aborts after its use. One year ago I had the satisfaction of bringing one through safely within six weeks of term by the use of cinchonidia, which very probably has the same objectionable properties as quinia, only without the bad reputation of that drug.

I suggest these few points merely to illustrate the vast field for useful discussion which the theme presents. They are but a few out of the very many which will suggest themselves to any one who will give the matter appropriate attention. In an age when a large proportion of the women are unwilling to bear children and cheerfully resort to all sorts of infernal methods to avoid doing so, and when a great number of those who bear them refuse to give them the chances for life which God designs, there is surely no higher obligation laid upon us physicians than to use every effort for the conservation of human life, whether it be ante- or post-natal.

1223 Connecticut avenue.