

tral implantation of placenta prævia, not a single death of the mother occurred, and only one death among the children. The cause of the death of that foetus, however, was not due to the existence of placenta prævia, but to hydrocephalus in the child.

The mother was phthisical, and the placenta was found to have undergone fatty degeneration. In two of the cases of this series, hæmorrhage occurred at the close of the seventh month; in two, at the close of the eighth month; in one, after the eighth month; in the last, near the close of the ninth month. In another series of eight hundred obstetric cases occurring in my own practice, there were four cases of placenta prævia. In two of the cases hæmorrhage occurred at the seventh month; in the third case, hæmorrhage did not appear until the second week in the eighth month; in the fourth case there was no hæmorrhage until the close of the ninth month.

This last patient was a primipara. The os and cervix were rigid and swollen. The hæmorrhage at first was moderate, but it gradually increased and at length became alarming.

Careful examination revealed that the placental vessels at the left and posterior aspect of the cervix had broken away. Tampons of iodoform wool and gauze were firmly applied.

This controlled the hæmorrhage for the next twenty-four hours, after which the cervix was more yielding. Further resistance was easily overcome by digital and manual dilatation.

The vaginal introitus was irrigated with warm sublimate solution. The iodoform tampons were continued. On the third day labor pains came on; these were encouraged by the application of the binder, and by massage to the fundal and equatorial segments of the uterine tissue. As the labor progressed, hæmorrhage ceased. The placenta was not fully detached until after the child was born, but was carried to the right and supported by an assistant using napkins dipped in a warm solution of bichloride. The child did well and the mother made a good recovery. I have no doubt that had I ruptured the membrane when first called, and attempted podalic version by internal and external method, the child would have been asphyxiated before the rigidity of the os and cervix could have been overcome, even if the subsequent expulsion of the head had been aided by the application of the forceps, as has been sometimes advised. In one case of this series, hæmorrhage occurred after the close of the seventh month; in one, during the first week of the eighth month; in the third, hæmorrhage did not appear until after the second week of the eighth month; in the fourth there was no alarming hæmorrhage until the close of the ninth month. In the first two cases of this last series, the mother survived. The foetus in one was still-born; the cause of its death was congenital ab-

dominal fissure. In the third case both mother and child survived; in the fourth the mother survived as above stated. In reporting these cases, I do not wish to lay claim as yet to any special method of treatment, for I am not unmindful that the outcome of the treatment of another series may be altogether different.

In the presentation of these cases, I can only commend for consideration, the method I adopted, in preference to others more radical in their nature, and which have so often been attended with unhappy results.

For, according to Churchill,⁶ it has been estimated in placenta prævia, that material mortality is as one in three.

Read has estimated as one in four and a half, and Barnes as one in ten and two thirds. Says Fitzpatrick, the dangers from prematurity, asphyxiation and malpresentation are very great. According to the same high authority, Churchill estimates that half the children are lost. In this connection there is a point in the treatment that should be emphasized, and it is this. It often happens that those who are engaged in the practice of obstetrics, and who may become exceedingly expert in detecting the various positions of the foetus and in conducting examinations, and in passing judgment upon methods of treatment, have really no surgical knowledge.

The nature and kind of training they have received, have not fitted them to meet and cope with the emergencies arising from the occurrence of a severe case of placenta prævia.

Knowledge to meet such emergencies can be obtained only by long, tedious and constant practice, and in purely surgical and gynecological cases. As the obstetrician has not, as a rule, the trained hand of the surgeon, the case is frequently hurried to an early close, often at the expense of the mother, and more often at that of the foetus.

SPECIFIC TREATMENT OF TYPHOID FEVER.

Read in the Section of Practice of Medicine, Materia Medica and Physiology at the Forty-first Annual Meeting of the American Medical Association, held in Nashville, Tenn., May 22, 1890.

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While it might seem the subject of the treatment of typhoid fever is well worn, and that but little progress has been made in its treatment during the last decade, it is yet true that much diversity yet obtains as to its therapeutics, and its rational and specific treatment is far in the rear of both its etiology and pathology.

Long before the microscopic discoveries of Koch and other investigators, the thinking members of the profession recognized the fact that

⁶ Lancet, April 6, 1889.

there was a specific cause for typhoid fever, and many other diseases, and attempts were made at various times to make such application of drugs that the disease-producing ferment of poison might be either neutralized or destroyed in the blood, and thus cut short a disease which, under other conditions, either lasted until death ended the scene or the fire ceased to burn for want of fuel.

Without any understanding of the necessary environments for the growth and proliferation of the poison, many different lines of treatment were carried out, with the intention of either cutting short the disease, or at least of lessening its severity.

One of the earliest plans of specific treatment was based on the supposition that the excretions of the microbe of typhoid fever was intensely alkaline, and as no living organism can exist for any length of time in its own excretions, large doses of nitrite of ammonium, reinforced by other ammonia salts as certain indications might require, were used. By this plan of treatment the author (a surgeon in the late Confederate Army) claimed the organisms producing typhoid fever were rapidly destroyed, and in a series of two hundred and twenty-five cases he claimed not a single death occurred.

By repeated and continued doses of calomel, German physicians claimed to greatly reduce the death-rate. Of later date the use of the salicylates, and more especially the salicylate of ammonium, have been highly lauded. The sulphites have also been used for the same purpose; also combinations of iodine and carbolic acid, known as the Bartholow treatment.

Many other plans of treatment, having for their object the destruction or neutralization of the typh-poison, have been tried, but time will not permit further notice of them in this paper. The general plans of treatment, however, have been the so-called expectant, *i. e.*, by meeting the dangerous symptoms as they arise, and thus obviate the tendency to death, be it coming from whatever direction it may.

From almost the earliest history of the disease the mineral acids have held a prominent place in the treatment of typhoid fever; not, however, as a poison destroyer, but as a tonic. They were supposed to assist in keeping up the vital forces until the fever had run its course. All these many years, however, the faculty were combating the destructive effects of an unknown something, a *contagium vivum*, whose effects, both pathological and lethal, were thoroughly understood. Of the laws that governed its growth and reproduction, even of the means by which it entered the human organism, almost absolutely nothing is known.

Within the last decade, stimulated by the investigation of Pasteur, of Koch, of Sternberg,

and of hundreds of other active, thinking, working members of the profession, darkness is rapidly being superseded by light, and we are fast recognizing the truth that all our contagious and infectious diseases are caused by a living entity within the body; a germ that has shape, and form, and laws of self-preservation, and reproduction, just as definite and positive as of any living organism. The veriest tyro in medicine is beginning to understand something, at least, of the life-history of bacteria and their agency in the production of diseases.

In the early part of the fall of 1889, following up the conditions under which pathogenic germs can be cultivated and reproduced, my attention was particularly drawn to the fact that all such germs could only be cultivated in an alkaline medium, and with the converse of this truth, as well, that let a culture fluid, perfect in every other respect, be either intentionally or accidentally made even slightly acid, the germ growth was at once arrested, and not only that, but the germs already in existence soon become feeble and then cease to exist.

It struck me like a revelation, that for the long-continued popularity of the acid treatment of typhoid fever I had found a rational hypothesis. More than that, it occurred to me that I had found a plan of treatment that promised to reduce the proliferation of the typh-poison within the body to the minimum, and possibly to entirely arrest it by a therapeutic agent that would have no deleterious effect on the human organism. Other germicides, such as the mercuriates, carbolic acid, etc., will, when introduced into the body in sufficient quantities to destroy the disease germs, destroy the patient as well.

Acting on my theory, I at once began the treatment of my typhoid cases, as soon as I was reasonably certain of my diagnosis, as follows: For the first 36 to 48 hours I gave calomel in five to ten grain doses until I had very thoroughly cleansed out the alimentary canal, for the purpose of either sweeping out or destroying all typh-germs that had not migrated from the intestine. While doing this I sterilized all foods and drinks, thus preventing the ingress of new germs. This being done, I put the patient on half drachm doses of dilute muriatic acid given in syrup and water, every three hours, night and day. Now as to results. In six cases thus treated, all recovered. In all diarrhoea was promptly arrested and never gave any further trouble; in fact, some little attention was required to keep the bowels open. In no case, after the institution of this treatment, did delirium occur. Neither sordes nor dry cracked tongue in any case. In five of the cases the duration of the disease was under twenty-one days. No complication existed, and convalescence was uninterrupted and unusually rapid. In none of the cases did the evening tem-

perature go above 103° after treatment was well commenced. In one case only, which began with an attack of la grippe, was protracted in its course, lasting nearly five weeks and having as a complication hæmorrhage of the bowels, which, while rather profuse, was readily controlled by morphine and ergot per orem.

It is true that six cases are a small number on which to base an opinion or tabulate results, yet the subject seemed to me to be of such vast importance, and the results obtained so marked, that I felt it a duty to bring the subject before the profession, hoping that many others might take up the work and by the next meeting be able to report results.

NOTE ON NASAL HÆMORRHAGE.

Read in the Section of Laryngology and Otology, at the Forty-first Annual Meeting of the American Medical Association, Nashville, Tenn., May, 1890.

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The object of this short note is to call attention to the symptom of bleeding from the nasal passages depending upon or associated with deformities of the septum, especially of its anterior portion. This observation is not new, but will be found in most of the works treating of nasal diseases. We find, however, that as a rule, the writers consider that the hæmorrhage is caused by a slight erosion located at some point of the deformity. For instance, Bosworth¹ says:—"Slight deformities of the septum are probably the cause and source of an epistaxis more frequently than any other lesion met with in the nasal cavity, the apex of the projecting portion becoming the seat of a slight erosion, probably as the result of attrition by the dust-laden current of the inspired air. In this way the walls of the blood-vessels become thin, while at the same time the eroded surface forms a site for the formation of dry crusts." This opinion may be accepted as fairly representing the views of the profession on this point. Yet it does not cover all the cases of epistaxis associated with these deformities. Some severe cases of bleeding occur without any erosion whatever, at least any that careful observation can detect. It is to this class of cases that your attention is directed. In studying these cases we must eliminate as causes of the hæmorrhage, 1, traumatism; 2, constitutional or systemic conditions; 3, vicarious menstruation; and 4, other local morbid conditions. We find simply an extreme thinness of the pituitary mucous membrane, due primarily to the presence of a deformity. There is no erosion. The hæmorrhage is often severe and difficult to control. It is intermittent. It may occur either upon the convex

or concave side of a deflection of the anterior part of the septum, or upon both sides. Sometimes, where there is thickening of the septum without deflection, we have observed hæmorrhage to occur from the same cause. The mucous membrane appears to become at these points extremely thin, and unable to withstand the blood pressure. I know of no pathological investigations of this condition, and speak only from a clinical standpoint. While it may not be strictly accurate to use the term "thin" in this way, it expresses very well the clinical features of these cases.

To illustrate how severe these hæmorrhages may be occasionally, I recall the case of a man aged 46 years, in good health and without constitutional disease, who, from repeated bleedings during about fifteen days, reduced his weight ten pounds, and was found in bed weak and frightened. Fear, of course, is an element to be considered in such a case, the loss of blood not answering entirely for the patient's condition. The treatment of these cases involves the removal of the deformity or the cauterization of the bleeding surface. When the deformity is sufficiently large to cause obstruction to respiration through the nostril, the thickened or deflected portion should be removed, preference being given in this operation to the fine nasal saw. Or where the deformity is sharp and projecting, even if not large enough to cause obstruction, it may be removed in a similar manner. As the wound heals and a new membrane is formed, we will find that the hæmorrhage will disappear. When the above conditions are not present, or when the bleeding takes place from the concave side of a deflection, the surface should be thoroughly cauterized. For this purpose I generally prefer chromic acid fused on the point of a probe. In this way each bleeding point can be touched. Frequently we find that these points are located at the union of the triangular cartilage with the vomer and the perpendicular plate of the ethmoid, and it is well to be especially careful in looking along these sutural lines. It may happen that a single cauterization will not be sufficient. The scab that usually forms after the application of chromic acid will not cling to the parts, or even fail of formation altogether. In such a case it must be reapplied as soon as we find the hæmorrhage recur. Sometimes I have found it necessary to apply it four and five times before success was obtained. Never has it failed when followed up in this manner. Of course the usual after-treatment is to follow, both after the removal of the obstruction and the cauterization, that now pertains to the proper performance of nasal surgery.

This treatment can be followed also when an erosion is present and the cause of the hæmorrhage, but then the indication is so plain that any one would naturally treat it in a proper manner. It is in these rather obscure cases, that could

¹ "Diseases of the Nose and Throat," Vol. I, p. 311.