An Inaugural Dissertation, on

Anemia Gravidarum

Submitted to the President, Board of Trustees, and Medical Faculty of the University of Nashville, for the Degree of Doctor of Medicine.

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of Tennessee

1857

Charles W. Smith, Bookseller and Stationer, Nashville, Tenn.
Anemia Gravidarum

Every obstetrical writer mentions plethora connected with pregnancy as the source of some of those diseases which, when they occur, so often compromise the safety of both mother and child. Much has been said about it, and so little about anemia, that it has been and is yet considered by some practitioners as the almost constant complication of pregnancy. When in fact the great majority of diseases connected with pregnancy are purely anemic. There are not a few women who, in the pregnant state, become affected with seeming disease of the heart characterized by irregular action.
of that organ, and a puffy flabby appearance of the muscular tissue. Which I conceive to be nothing more than characteristic of anemia. A pregnant woman should pass through the whole of her gestation without any feeling of disease, and many women do, conceive, develop, and bear their children without any apparent change of health or comfort. But there are some constitutions on which the influence of pregnancy is disastrous in the extreme, constitutions in which the gestation seems to be a direful effort of the life forces that they can scarcely carry out. They are, often unable to perfect,
and when perfected it is often at the expense of the woman's health, yes, her life. A woman who develops a child requires an augmentation of her hematonic power, indeed, she requires it for the maintenance of her own constitution when the life force is exerted with a preternatural energy. The laborer requires more food than the idler so does the woman who not only maintains her own development but has to furnish materials for the development of her child. Now this augmented development must be at the expense of her nervous constitution or power of the nervous matter. Some constitutions furnish
it without the least faltering of the nerve force, while others suffer the greatest detriment in doing so. When the nervous system becomes affected by these efforts it will be most likely to show its affection in some diminution of its power, and that diminution will be most likely to manifest itself in the specific times that are most immediately subservient to the supererogatory demands of the gestation. Inasmuch as all development takes place at the expense of the blood, of which the consumption and waste is very great in the progress of a gestation, it is not unphilosophical I think, to suppose that the tissue most likely to suffer is that that the blood is
in contact with, or blood membrane. When this membrane in consequence of excessive exertion of its functions becomes weakened or diminished as to functional force, then we shall have an imperfect blood. The blood becomes imperfect in regard to the proportion of its solid constituents, which are diminished while the watery part is abnormally increased, and this hydremic condition of the blood constitutes anemia. The excessive action into which the heart is constantly thrown by the calls from the capillaries for a fresh and more rapid supply of blood to supply the deficiency of nutritive material leads to its
enlargement, while defective nutrition renders it soft and flabby.

Hence the great demand for a perfect blood viz. blood containing, of 210 solid constituents, and 190 water, is capable of taking out of the respired air in the lungs the amount of oxygen required by the constitution of the individual, greater or less according to the exigencies of it under action or repose, whether physical, or mental. Such a blood can take from the atmosphere any quantity of oxygen required since it being perfect is in a fit condition to take up a supply equal to the demand. Though the solid contents of the blood be reduced and the aqueous element
be increased in proportion, it will still be capable of taking oxygen out of the respired air in the lungs, but incapable of taking a supply equal to the demand. Therefore, when the nervous mass would send down its stream of biotic force to the distal points in the organs, those streams will be feeble, irregular and incompetent to the perfect manifestations which are required to constitute a healthful play of the said organs. This is evidently the case with regard to all highly anemic patients, whose debility is evinced in the muscular energy, also in an imperfection and irregularity of their sensational, nutritive, and secretory forces. For the circulation the
respiration and the innervation constitute a trinity of forces mutually dependant one upon the other. So in anemia, the lungs, the Brain, and the heart, are all in a pathological condition the prime element of mischief consisting in a diminished crisis of the blood, and the blood is the fluid body and the body is the fixed and rigid blood. Now a woman, whose lungs, heart, and Brain are disordered by anemia, goes through her pregnancy with difficulty and hazard and becomes the early subject of those infiltrations of the cellular tissue denominated Edema. A woman in this condition or
under those circumstances become more or less emaciated, though her cellular tissue at the time be infiltrated with serum or halaties giving her the appearance of an embonpoint very likely to deceive the incautious diagnosticator. Here we have great irregularity in the heart's action, such as palpitation, great augmentation of the superficiality of pulsation, dyspnoea, orthopnea, paleness and convulsions with sudden loss of sight and hearing. Generally followed in turn by edema and true anasarca. The pulse from the least motion or emotion become quickened large gaseous, unsteady and very
sudden, though not like that of the hypertrophied heart, which is quick, stern, wave-like, and lasting. Place the anemic patient in a recumbent state of rest and you will have that abnormal pulse of 140 or 50, soon reduced to its normal beat of 85 or 90 to the minute.

The face and whole surface become sallow, pale and slabby, the cornua nearly uncovered by the upper palpebra. Respiration is generally troubled, and from the least exertion or emotion it becomes precipitate and difficult. Towards the close of the gestation the lower extremities become considerably in full, and the power of muscular
Motion is much curtailed in consequence of its always being attended with violent beating of the heart, and throbbing of the carotids, flushes of heat, breathlessness, and uneasy sensations in the head, such as pain, fulness, vertigo, with dizzying sound, and dimness of sight. It is not infrequently the case that when the woman attempts to walk about the room, she falls on the floor in a state of insensibility and for a while be absolutely pale, and scarcely able to speak, with a complete blindness. Though the eyes may be bright and the pupils natural, they are wholly without sight.
As the full term of gestation approaches, the swelling increases affecting the thighs, buttocks, and labia. The pericardium, not unfrequently becomes the seat of a dropsical effusion so that a complete orthopnoea soon declares itself. Then we have difficulty of breathing when in the horizontal posture, so much so that they have to be propped up with pillows or cushions and frequently seek relief by leaning against the bed post and find it as comfortable a position as they can get, for the suppression cannot be entirely relieved by any position, until the woman is
cured. Sometimes there is a sallow waxen aspect of the face and with this, a puffiness especially of the eyelids. The skin becomes translucent so when the fingers are held up, the light shines through the edges. In the progress of pregnancy we have some or all of those symptoms in an aggravated form, to a greater or less extent. Should this disease continue long, and be improperly treated, it is apt to induce general dropsy, organic disease of the heart. The immediate causes are either such as directly detract from the amount of blood, or such as diminish its healthy production. Diseases of the blood membrane,
produced from various causes will materially deteriorate the blood.
Frequent bleedings repeated at short intervals, spontaneous hemorrhages constantly recurring such as hemor-
rhagia and the haemor-
hoidal flux. Excessive secretory discharges especially from the bow-
el and uterus. Then we may
have as a second set of causes and indigestible articles of
food out of which the blood is elab-
orate producing a derangement
in the process of digestion, and
sanguification all having a tenden-
cy to deterioration. The abuse of coffee,
or excessive drinking even of cold wat-
er, connected with sedentary habits
are calculated to disturb the healthy action. So does the reverse habit such as prolonged overexertion, debilitating agencies of every description, also depressing emotions, grief disappointment, ambition, or business concealed and unanswered affections, great mental anxieties of all kinds are calculated in the nature to produce anemia.

The treatment of this affection is plain and simple to the reflecting mind. After properly diagnosing the case no one would think for a moment of using the lancet to overcome or even relieve the symptoms set forth. Instead of that we would prescribe recumbent
rest a light and nutritious diet with some tonic to repair the waste. So soon as the patient is able she should exercise in the free open air, for exercise and fresh air loaded with oxygen are the staples in keeping up the Charcoal fire that is going on constantly in the lungs, and the slow combustion in the system.

As to the diet, it should be frequently changed in order to stimulate the bowels so as to keep up that regular peristaltic action.

The tonic used may be vegetable or mineral. The mineral acids answer a very good purpose in slight cases. But we think the
ferruginous preparations by far, the most preferable, of these the Sulphate Carbonate and Muriate are the most frequently used. If you please you may add a small portion of Quinine, or Gentian, to those preparation.

What we conceive to be still better is the metallic preparation, that of Iron by Hydrogen. Should the liver be torpid an occasional blue pill may be administered or enough of the Extract of Taraxicium added to the Iron to keep up the action of that organ.

Some practitioners are opposed to the administration of Iron
to pregnant women under any circumstances. But we believe it to be a sine qua non in the cure of this disease as much so as bleeding, is in a high state of plethora.

Should congestion occur, it will generally be speedily relieved by cold applications to the part, counter-irritants and rest. All nervous symptoms should be allayed by some anodyne. If in the progress of the disease the patient should suffer an attack of hysterical convulsions they should be treated with the poetis gums, the asafetida, Brinck, and Opium in some form.
A fine preparation is made by adding one eighth of a grain of the acetate of morphine to half a drachm of cobalt. Many anodyne for a dose. Or what is still better is the ethereal extract of veratrum, I know of no remedy so well calculated in its properties to procure the desired relief in those paroxysms of convulsions.

By the proper use of those means we will be able to restore in a short time the woman to her natural health, and give life to the eye that now looks as if there was no life there, and bring back those ruby lips, and rosy cheeks, and instead of that
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