

plaster of Paris bandage or a gutta-percha splint was applied and the patient sent to a convalescent home. With regard to other affections in and about the knee-joint, such as loose cartilages, inflammation of Bursæ, etc., there was nothing special in their treatment.

Progress of Medical Science.

SUDDEN DEATH IN PUERPERAL CASES.

BY S. L. JEPSON, M.D., WHEELING, W. VA.

No class of diseases that the physician is called upon to treat is invested with the same amount of interests as those incident to the puerperal state.

The sudden, the unexpected death of the puerperal patient is an accident that, more than any other that occurs in the physician's experience, appalls him, and produces a realization of his own weakness in a strife with the "dread adversary."

It is not necessary for us, then, to impress the importance of every physician so in forming himself as to the cause, prevention, and cure of puerperal accidents, that he shall be able to give his patient such counsel and such treatment as will best conduce to her welfare by enabling her to pass through the process of childbirth, and the critical period following, with the least possible danger. It is certainly our duty as well as our interest to search out, by every possible means, the causes, however deeply hidden they may be, of these fearful accidents, and to devise means whereby they may be avoided, or, if this may not always be, whereby dangerous symptoms may be met promptly, and a fatal result prevented, if this lies within the power of human agency.

In furtherance of this end, we propose to present, in as brief form as possible consistent with clearness, the principal causes of sudden death during and after labor, as far as we are able to determine them. We shall also attempt to point out the predisposing circumstances present in each case, and offer, in conclusion, a very few remarks on the subject of treatment, especially that which is preventive.

I.—SYNCOPE.

Though this term is familiar to us all, yet it may be well for us, since it is sometimes loosely applied, to have a distinct understanding of its meaning as here used before proceeding with our remarks. The definition of this term, as given by Dunglison, is, "A complete and generally sudden loss of sensation and motion, with considerable diminution or entire suspension of the pulsations of the heart and the respiratory movements." Absence from the brain of its proper proportion of blood is the condition giving rise to the most important phenomena of syncope. The causes of this condition are innumerable, but are well classified by Copland as follows:

I. *Those causes which act more immediately on the nervous system.* We may name, as examples of

this class, depressing emotions; as, sudden terror, anxiety, disappointment.

II. *Those which affect chiefly the vascular system.* Examples: advanced heart disease, loss of blood, sudden removal of pressure from large blood-vessels.

III. *Causes acting upon the heart through the nerves.* Example: offensive and nauseating odors.

Brown-Séquard has recently expressed his belief that syncope may result from contraction of the blood-vessels of the cerebral lobes from spasm, and consequent diminution of blood supply. This spasm he regards as a true reflexion, the consequence of some peripheral nerve irritation.

Let us note briefly some of the conditions which render syncope especially common and dangerous to the puerpera.

(1.) There is always a temporary prostration of the vascular system after parturition. This is to be expected when we reflect that there is almost invariably a considerable loss of blood, which sometimes amounts to a hæmorrhage. Again, there is generally a profuse secretion from the skin, induced by the parturient efforts, which is in itself prostrating. But the enfeebled circulation is due mainly to the collapse which always ensues after violent muscular efforts, intense pain, and the inordinate excitement of the heart and arteries (Hodge).

(2.) The removal by the birth of the child, of the mechanical support to the large vessels of the abdomen. We have all witnessed the occurrence of, or tendency to, syncope of the patient tapped for ascites. The artificial support seems to become a sort of necessity, and, the abdomen having become so distended by pregnancy, we have not even the natural support of the viscera. This must be substituted by other support, if we would prevent unpleasant results.

(3.) Actual diminution of the quantity of blood in the circulation, in consequence of which it becomes more difficult to keep the cerebral vessels supplied. Of course, this is especially true when hæmorrhage has occurred.

(4.) The nervous susceptibility is highly exalted after labor. This is so common an observation, and the causes of this condition are so obvious, that comment is unnecessary. The connection between nervous irritability and syncope is obvious.

(5.) In this connection we may mention, as an aggravating circumstance, that extreme mental depression which exists in not a few cases prior to and during confinement, being the result of a long-felt fear—"a presentiment," the patient calls it—that the labor will terminate fatally.

(6.) Another condition which operates unfavorably in a number of cases is that extreme muscular relaxation, and consequent dilatation, of the walls of the heart, which is the consequence of anæmia during pregnancy.

We have, then, as predisposing causes of syncope in the newly-delivered woman: 1. Increased nervous susceptibility; 2. Mental depression, or the results of it; 3. Prostration of the vascular system; 4. Diminution of blood-supply; 5. Removal of support from the abdominal vessels; 6. Weakened heart-