and if it should happen, it may not be followed by such disastrous consequences.

Emotion may not only cause uterine contraction, but may strongly determine a flow of blood to the uterus, producing a sudden tension of vessels. This tension may find relief by bursting through the extremely delicate utero-placental vessels, causing an extravasation of blood between the uterus and placenta. Or extravasations may take place into the substance of the placenta, producing placental apoplexy, which will probably lead to detachment and hemorrhage. Direct violence, which is assigned as one of the most common causes, acts in a most obvious manner. Though the blow may not be directly over the placental site, it may act by *contre-coup*, throwing the uterine walls into active vibration, or causing violent contraction, and so separating the placenta. Pressure of the abdominal muscles may be a cause. Lifting, vomiting, straining at stool, coitus, coughing, standing at hard work, and many other causes have been assigned; but when we notice the many accidents which pregnant women may come through in safety, we are apt to think that perhaps the potency of violence as a cause may be exaggerated. At best, the causes are obscure.

In both of my cases, which have already been presented at meetings of this society, the patients complained, during the greater part of the pregnancy, of a continuous severe pain over a portion of the uterus which I afterwards learned corresponded with the placental site; and in both there were numerous foci of placental apoplexy, as well as portions which had undergone premature retrograde changes, which in my last case I have requested Dr. J. Caven to investigate and report fully to you to-night.

The symptoms of puerperal accidental concealed hemorrhage are acute pain over a portion only of the uterus. It is important to bear in mind both the circumscribed situation of the pain and its continuous cramp-like character, which conveys to the patient the idea of extreme tension. It is an early symptom, agonizing in character; it is soon associated with that group of symptoms which indicate collapse. The state of collapse arises partly from blood loss, and partly from shock to the nervous system. Shock is indicated by quickened, feeble pulse, pallor, and pinched expression, coldness of surface of the body, shallow respiration, restlessness, sighing, and retching. Labor pains are absent. If the abdominal walls are thin, local bulging of uterine surface may be noticed.

With these symptoms there is an absence of any appearance of blood from the genital tract, or, if the condition has lasted some time, oozing of blood serum may take place, the crassamentum being retained in its original situation. "Rupture of the membranes near the seat of the effusion, and a consequent appearance of blood in the liquor amnii, holds, as a symptom, the lowest rank in the order of frequency (Goodell); because should the os uteri be closed the membranes, however delicate, cannot, other things being equal, rupture any sooner than the uterine walls. For the sum of the resistance of the inclosed liquor amnii being equally distributed, exactly counterbalances the sum of the pressure exerted by the effusion."

The diagnosis is embarrassing at the outset. Intestinal colic may be suggested by the symptoms, but by careful examination we soon see that the symptoms are much too urgent—indeed, so urgent that the condition might readily be mistaken for rupture of the uterus; but uterine rupture is attended by retrocession of the presenting part and diminution in the size of the uterus when the fœtus has wholly or in part escaped from the organ, and the membranes are relaxed, or, more commonly, ruptured; whilst in concealed hemorrhage we have increased size of the uterus, and the membranes are entire. When the child is born, the placenta and black, hard clots usually come away with a rush. Prognosis in these cases—which often happens under conditions of debility or of disease, where there is little inherent power of resistance or of recuperation, and where the blood itself may have little tendency to clot—must always be extremely grave. "Death may occur in a few hours, even before delivery (Barnes); and sometimes the additional shock of delivery induces fatal prostration." Again, in spite of our best endeavors, a further continuance of hemorrhage after delivery of the child may extinguish what little hope remained. The child usually dies at an early stage. In 106 cases collected by Goodell, 54 mothers died,