

quired to detach it from the uterus. The necessity for this force implies resistance to it, and this resistance must, *quoad hoc*, retard the opening and normal dilatation of the os uteri, and consequently prevent the narrowing and elongation of the cervical zone.

Here comes the important practical question, as to how, and how far, we may safely and profitably aid nature. Whatever promotes the effective dilatation of the os and cervix uteri, and thus consentaneously advances the labor, and closes the torn vessels and exposed sinuses, must be in the right and safe direction; but whatever foreruns this, and throws upon nature premature requirements, must be wrong. We always best aid nature by imitating her. It is my belief that Prof. Simpson, by some process of latent cerebration, rather than by the adjvancy of his "mutual vascular economy of the uterus and placenta," did actually imitate nature, and by releasing the uterus from the resisting tenacity of the placenta, gave it a fair opportunity for doing its appropriate work. At all events I am quite prepared to believe, that in the 130 cases cited by him, as terminating fortunately by nature's spontaneous action, this "mutual economy" of forces and resistance was actually observed. When the placenta has been in part detached, that part which still adheres, resists, to a certain extent, the distending process; but when the adherence is finally and totally broken up, the cervix uteri obeys the unbridled force of the longitudinal fibres, and the placental zone becomes narrowed so as to obliterate totally the mouths of bleeding vessels. Could we then exactly appreciate the extent to which the placental adherence is retarding the process of dilatation, and feel assured that the vessels we tear, and the sinuses we uncover, will be promptly sealed by uterine muscular contraction, as they undoubtedly are in cases of spontaneous detachment and expulsion, to that extent might we safely anticipate nature's action.

In the process of distension the uterine surface on which the placenta sits, undergoes a complete change of form. From having been at first a circle, (or rather a quasi inverted cone,) with radii of 3 or $3\frac{1}{2}$ inches, it is, by the opening at the centre, which is increased by every successive pain, converted into a zone, now approximating to the form of the earth's temperate zones, whereas it primarily had the form of the frigid zones, the polar centres

of which correspond to our central os uteri, or the insertion of the umbilical cord. The continuous stretching of the inner or lower margin of this zone, must at once narrow its breadth, and continuously lay bare more and more of the uterine area, on which the placenta was placed. This recession or shrinking upwards, of the lower part of the zone, being the equivalent of the elongation of its inner boundary, and of its decrease of latitude, must be concomitant with a very notable change of form and condition of the blood-vessels passing lengthedly through the uterine wall, between its fibres, and opening on its surface, so that when the whole process of severance is accomplished, and the os is sufficiently distended to permit the passage of the child's head, or of its breech, the blood vessels have become compressed and strangulated, and are now no longer pervious. This is the actual "vascular economy" of the case, but certainly not that economy which Dr. Simpson alleged, for his is an utterly one-sided mutuality; it economizes for the mother at the cost of the child.

I have before said that we best aid nature by imitating her. That we may, in any process, imitate nature, it is indispensable that we should see, and clearly comprehend, how she does her work. We may, by imitating her, hatch eggs by a properly graduated heat, but if we should ignorantly overheat them, or by a higher heating, fancy that we shall shorten the period of normal incubation, we shall find that we have made a sad job of it.

When spontaneous detachment of the placenta takes place, nature does not effect it by tickling the child till it kicks off the placenta. She does her work more skilfully and more gradually. She does not tear off adhering portions before the denuded uterine surface is prepared to close the lacerated or exposed vessels. Because of the resisting utero-placental adhesion, her contracting energy and action must always be considerably in advance of the completion of her work, so that, to use a vulgar adage, she has not "to seek for the ladle when the soup is in the fire." But how must matters go when we dash away ahead of her, at *tearing* pace, and lay bare a large utero-placental surface not yet in a state of progressing active contraction?

Dr. Charles Bell, in a paper published in the *Edinburgh Medical Journal*, June, 1878, on the subject of placenta prævia, makes the following pointed and most truthful assertion: "There is no