

as this viscus became more and more distended, so tearing off patches of the newly-formed secondary sac.

*Cause.*—Of all the causes of necrosis of tissue, only two require to be considered here, viz. (1) mechanical injury and (2) interference with the circulation; and both may be taken together.

Let us look for a moment at the position of the female bladder. In the non-pregnant condition, the bladder is a pelvic organ entirely, as in the male. Even during pregnancy it is pelvic up to the end of the first stage of labour, when it becomes pelvo-abdominal, the neck and base lying behind the symphysis pubis, while the rest rises into the abdomen, but, on completion of the second stage of labour, it becomes pelvic again. These conditions are very clearly shown in the plates accompanying Dr. Barbour's very instructive paper on the anatomy of labour in the *British Medical Journal* for November 1st, 1890. We are now in a position to study how the bladder may be mechanically injured and have its blood supply cut off during labour.

As I have before stated, by far the greatest part of the blood supply of the bladder enters through its base. This, as has been seen, lies behind the pubic bones during the second stage of labour. The descending head presses the soft vesical wall between the cranial bones of the foetus and the hard pelvic bones of the mother, but, normally, the duration of the pressure is too short to do much injury. If, instead of for two or three hours, this pressure is applied for a day or more, it can be readily understood what damage the continuous crushing does to the soft parts. Besides the direct mechanical injury inflicted by the pressure on the bladder walls themselves, the channels through which they receive their blood supply are pressed on so that it is interfered with to a greater or less extent. Retention of urine may also be brought about by this pressure of the neck of the bladder between the foetal head and pubic bone (and it usually accompanies this condition), and increases the difficulty of the circulation through the bladder walls by the tension set up by the collecting urine.

If we look over the table which Dr. Haultain collected (and