

days, varying according to the progressive tightening of the clamp, drops off without odor or discharge. That absolute safety may be assured, it is of the greatest importance that a reliable wire be used. The daily tightening of the clamp keeps up a constant strain on the metal, while at the same time it brings the wire into a greater curvature. The metal must, therefore, be pliable, but strong, and not ductile as copper. For this purpose he prefers the Delta metal.

Howard Kelley recommends constriction of the pedicle by the elastic ligature, amputation of the tumor so as to leave a cupped surface to the stump, then a careful suture of the raw surfaces of the stump, leaving the ends of the sutures long; then suturing off the stump into the lower angle of the abdominal wound. In cases of hæmorrhage or oozing, the long suture ends allow the stump to be easily brought into sight. Whether this improvement of his has diminished his mortality or not, I am unable to say, but I see by the last reports on gynecology of the Johns Hopkins Hospital (*British Medical Journal*, Oct. 11th, 1890, page 848), that of the six hysterectomies for fibroids performed in that hospital between October, 1889, and March, 1890, there were three deaths or a mortality of 50 per cent. On the other hand, at the recent meeting of the American Association of Obstetricians and Gynecologists at Philadelphia, Dr. Joseph Price reported the wonderful record of twenty-six consecutive abdominal hysterectomies without a death. The method which he invariably employs, being extra-peritoneal treatment of the stump with Kœberle's *serre nœud* and transfixing pins (*Buffalo Medical and Surgical Journal*, Nov. 1890, page 222).

Fritsch, at the 10th International Congress (*American Journal of Obstetrics*, 1890, page 1166) summed up the whole question, to my mind, very clearly, when he said: "The different methods of operation are immaterial in view of the question whether the mode is to be intra-peritoneal or extra-peritoneal."

Only three objections are of importance to this method, which are:

First, that the dragging of the stump up to the lower angle of the abdominal incision causes, in some cases, obstruction of the rectum, but I have never seen this occur to such an extent as not to be easily overcome by a turpentine enema,

which by distending the rectum, allows the free escape of gas.

The second objection is that in some cases, the tumor extends so far down in the cervix as to render it impossible to get a pedicle, but even in this case, the same method holds good, for it is only necessary to transfix it, no matter how large, with Tait's pins, or even two knitting needles, and to set a wire around it, when, even if it were the size of the thigh, it could be greatly compressed. Besides, it is just in these cases in which shrinkage is greatest after an operation, and consequently in which the danger would be greatest of sewing up the stump and dropping it into the abdominal cavity. It can be watched, and as it shrinks, the wire can be occasionally tightened, if rendered necessary by bleeding.

The third objection is that there is sometimes downward sloughing of the stump; but this I believe can always be avoided by not tightening the wire more than just barely enough to control hæmorrhage but leaving the screw always accessible, so that it may be tightened if necessary.

*Drainage.*—One of the greatest secrets of success in abdominal operations, is without doubt, the realization of the absolute necessity of leaving in a drainage tube in every case in which adhesions have been torn, and in which consequently, there will be oozing into the peritoneal cavity. It is quite true that the peritoneum, if left unhampered with opium in any shape or form, may be able to dispose of a large amount of exudation, more especially if it is drained through the walls of the intestines, by the passage through the latter of a denser saline fluid towards which the peritoneal liquids will flow by osmosis. But, nevertheless, the risk of leaving the liquid in the peritoneal cavity to putrefy, is too great for any one to run. As Tait has recently shown, there are germs everywhere, even in the peritoneal cavity during an operation; but they will be apparently harmless if there be nothing there on which to germinate. Germs cannot live on air, they must have dead organic matter to subsist on; so that instead of germicides, Tait and all his school depend rather on leaving the abdominal cavity clean, and keeping it so.

Looking over the death rate of abdominal hysterectomy, we notice that the greatest run of successful cases are in the practice of men such as