

## THE TECHNIQUE OF TUBAL STERILIZATION

By FRED J. TAUSSIG, M. D., St. Louis  
Gynecologist to the St. Louis City Sanitarium

THE rather frequent occurrence of pregnancy among insane women who, either because of improvement in their mental condition or at the request of relatives, have been discharged from the sanitarium, brings up the question of sterilizing such women before permitting their departure. Such measures seem doubly advisable, on the one hand because of the frequent detrimental influence of pregnancy upon the psychosis, and on the other hand because of the almost invariable hereditary transmission of the psychosis to the progeny. When we consider the predominant rôle played by heredity in the causation of insanity, steps taken toward diminishing the number of children born of insane mothers certainly seem justifiable. While the human race is barely awakening to its responsibility in the problems of eugenics, and the laws of this country do not as yet generally recognize the right to perform sterilization operations *per se*, nevertheless, if done in association with other operative work, there can be no objection.

In my service at the City Sanitarium, while operating for movable retroversion, ovarian cyst, one-sided inflammatory trouble, and other gynecologic ailments, I have had occasion a number of times, always with the consent of the patient's relatives and upon consultation with the superintendent, Dr. George A. Johns, to include the operation of tubal sterilization. From the unfavorable reports of other surgeons and from personal experience, a somewhat modified technique has been evolved and employed in the last four cases. In operations of this kind it is difficult to estimate the comparative value of different methods except by *a priori* reasoning and occasional failures.

Simple ligation of the tubes with excision of a small piece has not been uniformly successful,

probably owing to the patency of the uterine end of the tube after the ligature of the tube had cut through. Similarly the excision of the interstitial portion of the tube at the uterine horn resulted in one of Kuestner's cases in pregnancy following the operation through the formation of a utero-abdominal opening. Asch and Labhardt employ a technique by which the cut end of the uterine portion of the tube is slipped within the folds of the broad ligament. The objections to this technique as I see it are the possibility of a small rent in the peritoneum of the broad ligament, allowing of possible impregnation, and the danger of the development of a hydrosalpinx in the sealed portion of the tube. It is this same likelihood of a hydrosalpinx that is in my mind so strong an objection to those methods of sterilization in which the fimbriated ends of the

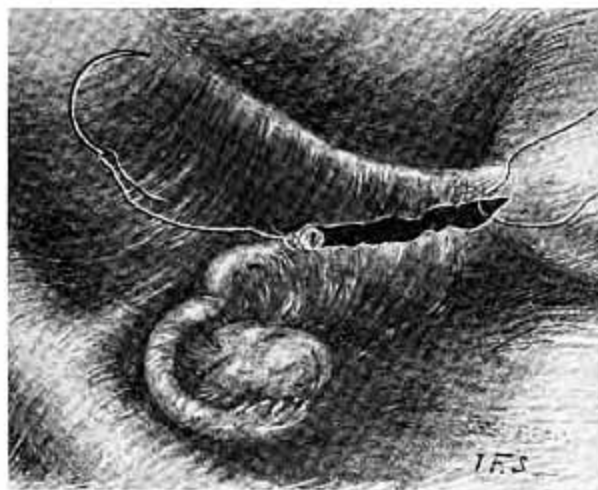


Fig. 1. The interstitial and isthmian portions of the tube have been removed. The ligature in the uterine horn has not yet been tied.



Fig. 2. The ligated end of the remaining portion of the tube has been drawn down between the folds of the broad ligament and fastened there by a suture through the anterior sheath of the ligament.

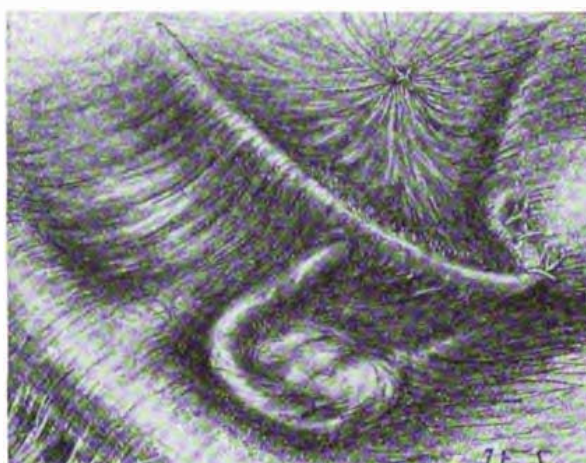


Fig. 3. The round ligament is sutured over the cut in the uterine horn, covering this and the opening in the broad ligament at the same time.

tubes are either sewed into a fold of the broad ligament or drawn upward through the inguinal canal and there tied off. It therefore seemed wise to somewhat modify the technique heretofore employed.

The technique of my operation is as follows: The abdomen is opened by a small median incision in the usual manner and the uterine end of one Fallopian tube seized with forceps. The uterus is thus pulled into view so that a suture can be passed through the uterine horn at the tubal insertion. Before tying this suture, the interstitial portion of the tube is cut away by a V-shaped incision. Next, the tube is freed from its peritoneal attachment for a distance of about one inch and, a ligature having been thrown around the distal end, this free portion of the tube is resected. Figure 1 shows conditions at this point in the operation. It will be seen that the needle is left threaded in the ligature thrown around the tube.

With an artery forceps or Mayo dissecting scissors the layers of the broad ligament are separated from each other at the point where it has been opened up. Catching the end of the tube with an extra suture to prevent it from slipping, the threaded needle is now passed through the open space in the broad ligament, and emerges just anterior to the round ligament near the attachment of the vesical peritoneum to the uterus. An extra suture is passed through the peritoneum at this point so as to completely bury this end of the Fallopian tube in the broad ligament (Fig. 2).

The third step in the operation (Fig. 3) con-

sists of sewing the round ligament by one or more sutures to the upper posterior surface of the uterus, thus closing over the point of the tubal insertion and the small open space in the peritoneum of the broad ligament.

The same technique is observed in resecting the tube of the other side, and the abdomen closed in the usual manner.

In cases of movable retroversion the round ligaments can be folded back far enough to meet in the median line on the posterior surface of the uterus and hold that organ forward and upward.

The advantages of this technique are its greater security against possible conception. The steps are so simple and easy as to require but a few minutes, and the additional precautions would seem to be worth while.

To specify the advantages of the technique employed, we have:

- (1) Resection of the narrowest part of the tube (the interstitial portion).
- (2) Closure of the uterine wound by a double layer; first of the uterine wall, second of the round ligament.
- (3) Burying of the proximal end of the cut tube far away from the uterine horn.
- (4) Prevention of hydrosalpinx by leaving the fimbriated end of the remaining portion of the tube open.

The operation just described can be done vaginally as well as abdominally, but, except for patients with prolapse or relaxed pelvic floor, the abdominal route is preferred on account of its simpler technique.