

for cancer of the esophagus. Witzel's operation was performed in four of the cases with very excellent results.

The Ssabemjew-Frank's operation was done upon one of the patients, who had a more than usually large stomach. It was equally successful; the patient could attend to himself with ease, and at no time was there any discomfort experienced from leakage—the oblique direction of the canal into the stomach preventing this occurrence in both operations.

In most of the Witzel's operations the patients wore the tube in the canal, more from the dread of the canal closing than from the real contraction that took place.

Gastrostomy was—in four of these cases—done only to give the sufferers temporary relief, which it evidently did accomplish. Unless the patient is moribund before the operation there is little risk in performing it.

These operations are easy of performance, and I have no doubt will be further simplified. In fact a modification by Mayo Robson of Ssabemjew-Frank's operation is completed by four stitches and the insertion of two hair-lip pins.

In Marwedel's operation, which is a further modification of Witzel's, the canal for the tube lies between the muscular and mucous layers of the stomach, and is said to give still better results; the canal shows less tendency to contract, and the operation can be more safely performed.

In one of the cases it was done for a stricture following a gunma that had destroyed a portion of the esophagus, leaving a fistula in the neck. At a later date I had intended performing a plastic operation to close it, but, unfortunately, malignant disease supervened upon the original trouble.

The prolongation of life in malignant disease ranged from 9 days to 8 months— $8\frac{1}{2}$ ,  $4\frac{1}{2}$ , 21 days and 9 days. The other case, which could not be classed as malignant from the first, lived 31 months ( $2\frac{1}{2}$  years).

This operation, I am convinced, is justifiable in malignant disease, if for no other reason than for the relief of the distressing symptoms of hunger and thirst.

*Gastrotomy*: The four cases I have recorded are cases of exploratory gastrotomy, to determine the cause, if any, of the symptoms complained of.

The peritoneal cavity is opened above the umbilicus, and the contents of the stomach squeezed into the duodenum. The incision into the stomach I find most useful is a free opening 2 to 3 inches long over its middle third, parallel with its long axis. Through this—when the edges are held well apart, with the aid of a small electric exploratory lamp—nearly all the surface of the stomach can be seen. The finger can from this point reach almost any part of the cavity.