

showing that the mortality of the operation, as would be expected, is greater in infants than in adults. Sands remarks very properly show that the mortality depends more on the condition of the intestine than the age of the patient. In taking all cases together, he has found that the mortality of the operation is fourteen per cent. in the easy, and ninety-one per cent. in the difficult cases.

Braun (*Verh. der Deutschen Gesellschaft f. Chirurgie*, 1885) tabulated fifty-one operations performed since 1870; that is, operations done under antiseptic precautions. Of this number, eleven were cured and forty died. In twenty-seven of these cases disinvagination was effected, and in twenty-four it was not; of the former, eighteen were children and nine adults. Four children recovered, while fourteen died. Seven adults lived and two died. Resection of the invaginated portion was practised twelve times with only one recovery. An artificial anus was established in nine cases, followed by death in every instance.

The largest number of operations for invagination has been collected by Treves (*The Lancet*, December 13th, 1884). He gives the general mortality in one hundred and thirty-three recorded cases as seventy-two per cent.; where reduction was easy it was thirty per cent., and when difficult ninety-one per cent. No one can look over these tables without noticing that the mortality was greatly influenced by the time which had elapsed since the invagination occurred and the local conditions of the parts involved, as when reduction was easy the results were much more favorable. This fact alone should convince us that laparotomy should be resorted to without delay as soon as a faithful attempt at reduction by rectal insufflation has demonstrated that reduction cannot be accomplished in any other way. The operation should be done as a first, and not as a last, resort.

As in cases of strangulated hernia, the obstacles to reduction become more serious and persistent as time advances, and the danger is augmented in proportion to the time which elapses until reduction is attempted. In reference to the time when the operation should be done, I can only caution against delay and make at the same time the positive statement that as in cases of strangulated hernia it should be done

as soon as it has been shown that reduction is impossible by the employment of simpler measures. The age of the patient should not enter into consideration in deciding upon the propriety of an operation. Sands (*Op. cit.*) operated successfully upon an infant only six months old, where the ordinary treatment by injection and insufflation had been only partially effected in accomplishing disinvagination. The cæcum and appendix vermiformis and a small portion of ileum remained firmly fixed in the sheath, and it required considerable traction force to release them.

Godlee (*The Lancet*, December 16th, 1882) performed abdominal section successfully for invagination in a child nine months old, four days after the commencement of acute symptoms. In this case the invagination had progressed so far that the apex of the intussusceptum protruded at the anus.

Mr. Hutchinson (*Medical Times and Gazette*, November 29th, 1883) narrates the particulars of a successful abdominal section for intussusception in a child two years of age. The invagination had commenced in the ileo-cæcal region, and during the course of one month had advanced so far that the distal end of the intussusceptum was extracted several inches at the child's anus. As rectal injections failed in reducing the bowel, the abdomen was opened by a median incision below the umbilicus, and the intussusception was then easily found and as easily reduced. The child made a rapid recovery.

*Preparations for Operation.*—Instruments, ligature and suture materials should be on hand to make a resection or an intestinal anastomosis, should it be found, inexpedient or impossible to reduce the invagination. As the operation should follow immediately after an unsuccessful attempt at disinvagination, it is advisable to make the necessary preparations for the operation before the insufflation is made, so as to lose no unnecessary time and complete what is to be done while the patient is under the influence of the anæsthetic. As rectal inflation may become necessary to assist the reduction by taxis, the necessary apparatus should be on hand and ready for use. Several sizes of decalcified perforated bone plates must be on hand for making an intestinal anastomosis, should this become