

that it is a suitable one. It is probably impossible to be absolutely certain that the cystic and common ducts are patent, or to be certain at the time of operation that the bile in that case is sterile. We know that, sometimes although not often, it does contain the common colon bacillus and other pathogenic germs.

I think it can now be stated that long persistent jaundice does not indicate that uncontrollable hæmorrhage need be feared in operating. If malignant disease be present, however, there certainly is great danger from hæmorrhage, both at the time of operation and subsequently. It is the presence of the malignant disease rather than the cholæmic condition of the blood that is to be feared.

I would like to emphasize the fact that cholecystostomy in the absence of malignant disease is a safe operation, because I think that Kehr is correct when he says that many patients are spending more or less time at Carlsbad who could be much better and more satisfactorily treated upon the operating table. Recurrence is rare; I have never seen a case of recurrence reported. I also think that the long-continued presence of gall-stones in the gall-bladder and ducts may under favourable conditions act as a cause of carcinoma in their neighbourhood.

Cholecystostomy has been sufficiently often performed now to show that it is not in all cases sufficient and all that could be desired. In some cases bile continues to be discharged through the abdominal opening even when the gall-bladder opening has been, as it always should be, attached only to the peritoneum and transversalis fascia. In these cases there is generally an obstruction, usually a gall-stone obstruction, in the common duct.

To remedy this condition cholecystenterostomy or the establishment of a communication between the gall-bladder and some part of the small or large intestine has been performed.

The mortality after this operation, which was reported by Billroth to be 50 per cent., was reduced by Lücke, of Strasbourg, to 31 per cent., and by American surgeons to 11 per cent.

It seems now to be the general opinion of surgeons that this operation has been too frequently performed. It is not altogether satisfactory. The objections to it are (1) its danger; when an opening is made into the intestine the danger of septic infection is at once much increased; (2) the possibility, especially if the communication is made with the colon, that pathogenic germs may pass up to the cystic duct and liver; (3) that an accumulation of bile may take place on the liver side of the obstruction of the common duct and convert that portion of the duct into an unnatural gall-bladder; and (4) that the bile is lost,