

having been removed and a probe having been passed through the common duct into the intestine the purse-string suture is drawn and tied and any further escape of bile over the field of operation is prevented. A supporting row of mattress sutures should now be placed to more securely close the opening into the duct. Before closing the abdomen it will be wise to place a small gauze drain down to the duct and to drain Morison's pouch by a single drainage tube from the front or by through-and-through drainage.

As I have said before, the intestine should not be opened for the purpose of removing a stone from the common bile duct. Such a procedure is not necessary according to the light of our more recent experience. It may happen that a malignant growth, a so-called cylindroma, obstructing the common bile duct is mistaken for an impacted gallstone. I have met with such a case in my own practice and have seen two similar cases in the practice of others. Under such circumstances the jaundice usually comes on suddenly without pain; it may be intermittent. A rounded mass will be felt after the abdomen has been opened that can only be differentiated from stone by means of a needle passed through the wall of the duct into the mass, or by means of the passage of a probe or a pair of forceps through an incision into the duct. Owing to its gritty nature a gallstone can be easily distinguished from a neoplasm. These growths are always rounded and not faceted and frequently move back and forth in the duct through a small space.

It is scarcely necessary for me to enter into a description of more than general details of these operations to such an audience. We all know that these operations can not be carried out successfully unless proper precautions are taken to prevent contamination of the peritoneal cavity. Sponges, absolutely sterile and plenty of them, must be made use of so that during the performance of the work all the intestines, except a portion of the colon and the stomach, are kept out of view. Sponges soiled with bile or gall-bladder mucus must be discarded and not used again during the performance of the operation.

And now, in conclusion, let me say that there are two great surgical principles involved in this work; firstly, thorough asepsis and thorough protection against the