

and occluding both the bile and pancreatic ducts. It will be seen that, while the normal termination and the second variety of termination of the ducts will favour the onset of pancreatitis in case of common duct cholelithiasis, the variations 3 and 4 in which the two ducts are separate will possibly save the patient from the serious secondary pancreatic troubles, and in variation 5 a small portion of the gland only will become infected.

But the pancreatic ducts themselves are also subject to great variations that may influence the course of events. The beautifully dissected specimen from the Hunterian Museum, a photograph of which I throw on the screen, and the X ray photograph of Wirsung's duct injected with mercury, also shown, demonstrate the normal anatomy of the pancreatic ducts, and show how the lobules have each a separate duct that opens into the main channel or duct of Wirsung, which itself opens into the ampulla of Vater, or directly into the duodenum, as described; but it will also be noticed that a smaller channel, the duct of Santorini, usually discharges some of the secretion of the pancreas directly into the duodenum, and that in a certain proportion of cases the two ducts communicate.

The diagrams I now point out will explain this. They show the result of observations by Opie on 100 cadavers, in which the ducts were injected and photographed, with the following results.

In 90 specimens the two ducts are united; in 10 two wholly independent ducts enter the intestine.

(1) Of the ducts in anastomosis.

1. Duct of Wirsung larger in 84
 - (a) Duct of Santorini patent in 63.
 - (b) Duct of Santorini not patent in 21.
2. Duct of Santorini larger in 6.
 - (a) Duct of Wirsung patent in 6.
 - (b) Duct of Wirsung not patent, 0

(2) Ducts not in anastomosis in 10.

- (a) Duct of Wirsung larger in 5.
- (b) Duct of Santorini larger in 5.

In 89 per cent. the duct of Wirsung was larger than the duct of Santorini. In 21 per cent. the duct of Santorini was apparently obliterated near its termination. In six cases the duct of Santorini was larger than the duct of Wirsung. In all cases where the duct of Santorini is patent it diminishes in size towards the duodenum. Thus the duct of Santorini cannot be relied on in many cases to supplement