Moments in Surgery

The unsolved mystery of Johann Georg Wirsung and of (his?) pancreatic duct

Claudio Bassi, MD, FRCS, and Giuseppe Malleo, MD, Verona, Italy

From the Department of Surgery, General Surgery B, G.B. Rossi University Hospital, Verona, Italy

Many centuries have passed, and much has been written about the controversial discovery of the pancreatic duct by Johann Georg Wirsung. His brutal death was even more mysterious, the truth being almost certainly blown away in the alleys of Renaissance Padua.

In November 1629, after studying anatomy in Paris and Altdorf, the German student Johann Georg Wirsung moved to Padua, where he graduated on March 23, 1630, with a doctorate in Philosophy and Medicine. He was then selected by the Professor of Anatomy Johan Wesling for the position of prosector of Padua, a role he held for the rest of his life.

The discovery of the pancreatic duct occurred on March 2, 1642, at San Francesco Hospital during the autopsy of Zuane Viaro Della Badia, a 30 year-old man who had been hanged the day before.1 Wirsung was assisted—perhaps fatefully—by 2 students, Thomas Bartholin of Denmark and Moritz Hoffmann of Germany.

Wirsung recognized that his finding was important, but had no idea about the possible function of the duct itself. Essentially, until then, the multiple roles of the pancreas were not appreciated; indeed, the pancreas was thought to be a cushion for the stomach and a pad supporting the vessels. Wirsung did not publish his discovery; instead, he personally engraved an anatomic drawing of the pancreatic duct on a copperplate (Fig 1), entitling it, Picture of a kind of duct with multiple small branches, recently observed in different human bodies by Jo. Georg Wirsung, Doctor in Phil. and Med.2

Thereafter, using this copperplate, Wirsung made at least 7 impressions that were sent to authoritative anatomists across Europe (including his former mentor, Professor Riolan) to obtain their opinions on the function of the duct and—at the same time—to ensure priority of his finding. The history of the 7 drawings has been reconstructed by Howard et al2 from Wirsung’s correspondence, which was published several years after his death.

As the story is told, Wirsung and his students initially thought that chyle from the spleen was transferred into the pancreas. No connection with the spleen, however, was demonstrated, and so the fluid found within the duct was assumed to be an excretion produced in the pancreas. This description was the first to establish the role of the pancreas as an excretory gland. As stated in his letters to Riolan, Wirsung confirmed his discovery in human adults, newborns, and fetuses. He also kept investigating the duct on several animal species, but never really came to a conclusion regarding the actual function of the pancreas.

But from here, the story becomes even more intriguing. Johann Georg Wirsung was shot to death on August 22, 1643, in front of his house in Padua, near Collegio Pratense and the Basilica of St Anthony (Fig 2) by a Flemish man named Jacques Cambier. In 1715, the famous anatomist Giambattista Morgagni wrote that Wirsung was murdered for private revenge of unknown motivation.1

Other sources fail to confirm this view, and rather suggest a conflict over the discovery of the duct or a dispute about the naming the duct as the most compelling reasons for the assassination. In other words, Cambier might have been a simple executioner and an unknown anatomist the instigator. It has been said in this regard that either Professor Johann Wesling or Moritz Hoffmann (1 of the 2 students who assisted Wirsung with the dissection...
leading to the discovery of the pancreatic duct) had something to do with the assassination. This theory, however, has never been confirmed.3

Conflicts between Wirsung and Wesling were well-known,4 and Moritz Hoffmann—5 years after Wirsung died—claimed to have discovered the duct in a turkey during a dissection at the Liceo dei Veneziani on September 1641. He claimed that he would have shown the duct to Wirsung, who then sought it in man.2 Hoffmann, however, did nothing to inform the scientific community of his pancreas dissection in turkeys, whereas the drawings and correspondence with leading anatomists established Wirsung’s priority of recognition for the discovery.

Wirsung, unfortunately, never knew that Professor Van Horne of Leiden was the first to apply the name *Wirsungianus* to the duct in 1685 and that Professor Riolan in Paris started using this term in his lessons. Current universal application of the term *Wirsung duct* is the history we all know.

As Italians, we are obviously very proud of our history and, for those of us from Padua and Verona, we wish to show how much the pancreas is literally engraved in our territory. Padua and Verona are located in the Veneto region in northern Italy. The Medical School of Verona was born from a rib of Padua University and became
independent in 1982. Since the beginning, pancreatology has been our principal area of interest, maybe thanks to the glorious history we have narrated above, or—maybe due to the influence of the nearby Lake Garda, the largest lake in Italy, a popular tourist attraction (Fig 3). This lake, however, is of even more interest to the world of pancreatology because—when one turns Fig 3 to the right and looks at the conformation of the lake—it has a head, a body, and a tail…

REFERENCES