

César Roux – a History of the Roux-en-Y

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The origins of “Roux” have been misinterpreted. One surgeon has actually explained that “Roux” means “street”.

César Roux (1857-1934) was born in Mont-La Vie, Switzerland, one of 11 children. He studied medicine in Bern and later became Professor of External Pathology and Gynaecology in Lausanne.

A major problem in the 1890s was the treatment of gastric outlet obstruction. At that time, there was no radiology for operative diagnosis, only an early concept of asepsis (with no rubber gloves), rudimentary anesthesia, and lack of I.V. fluids (fluids were administered into the rectum, and oral fluids were started early postoperatively). Starting in 1892, Roux began re-routing the gastric contents by dividing jejunum, anastomosing the distal limb to the stomach and anastomosing the proximal (afferent or biliopancreatic) jejunal limb to the side of the jejunum. He first reported his technique in 1893. This operation was used for relief of peptic ulcer obstruction and palliation for cancer of the lower stomach.

A late complication of this procedure was marginal ulcer on the jejunal side of the gastrojejunostomy. At this time there was no pharmacologic treatment for peptic ulcer, nor the concept of vagotomy. Thus, the Roux-en-Y jejunal loop was little used until the 1950s, when it began to be used for the relief of biliary obstruction and choledochal cyst, drainage of the pancreatic duct of Wirsung and pancreatic pseudocysts, and for total gastrectomy replacement, duodenal trauma and for bile reflux gastritis. Initially, Roux used a 12-cm limb, but later it was found that 30-40 cm was necessary to prevent reflux of digestive juices to the stomach or to prevent reflux of food to the biliary system (avoiding ascending colangitis) or to pancreas. In bariatric surgery, use of a Roux-limb to drain the proximal stomach was first described in 1977 independently by Nicola Scopinaro in the BPD (where a major portion of the acid-producing stomach is resected) and by Ward Griffin in gastric bypass (to prevent tension on the jejunal incontinuity-loop of the Mason horizontal gastric bypass). A Roux-loop has now been used after sleeve gastrectomy to drain persisting high leaks.