**ALI SIDDIQUI:** So chronic pancreatitis, in layman's terms, is scarring of the pancreatic tissue. The most common cause is from long-term use of heavy alcohol. There are multiple other causes. A lot of the patients that we see are from genetic causes. We also can see them from chronic stones in the bile duct.

**MICHEL KAHALEH:** Chronic pancreatitits is a chronic, fibrotic, and destructive disease of the pancreas. The pancreas is completely invaded by scars, and calcification, and remodeling. And unfortunately, the bile duct goes through the head of the pancreas, so it's going to be impinged from the outside by the pancreatic scarring. So it's one of the hardest biliary strictures to treat because the disease is into the pancreas.

**MARCO BRUNO:** The various treatment options for patients who present with a biliary stricture caused by chronic pancreatitis are mainly endoscopic or surgical.

**MICHEL KAHALEH:** Biliary stricture due to chronic pancreatitis used to be handled surgically. But let's be honest. Chronic pancreatitis patients are not the best protoplasm to do surgery. So we shifted for endoscopy treatment in those patients, and we typically used to give them biliary stents that are first plastic.

**MARCO BRUNO:** The protocol that we use-- that we used when we treated patients with plastic stents to treat a biliary stricture in chronic pancreatitis was the protocol what we call progressive plastic stenting. In general, that would mean that the patient would come back every three months to have stent exchanges and to try to up-titrate the number of plastic stents.

**GUIDO COSTAMAGNA:** Plastic stent we know tends to occlude. After three or four months, at least 50% of the stents are already occluded. So if the patient needs to be stented longer than this period, you have to call him back and to replace the stent with another plastic stent or with multiple plastic stents.

**MARCO BRUNO:** It is a clinical situation that is relatively difficult to manage, at least that was until we had metal expandable stents. Difficult situation where you had to do multiple procedures, place multiple plastic stents, and still the clinical outcome was not that good. But that changed when we started to use the expandable fully covered metal stents.

**ALI SIDDIQUI:** But there's clearly a huge difference between replacement of plastic and metal stents. In patients that we put in a plastic stent, they come for a replacement by ERCP every 8 to 10 weeks. The reason for that is that the stents will occlude, and these patients will get complications like cholangitis or obstructive jaundice.

**JESUS GARCIA-CANO:** My first choice is to place fully covered biliary WallFlex. Usually, the patient-- you can live with the stent for 6 to 12 months. It's very easy to remove the stent.

**GUIDO COSTAMAGNA:** The interest of using a fully covered removable metal stent instead of repeated interventions with multiple plastic stents is to reduce the number of ERCP essentially to two, one to place the stent and a second one to remove it.

**MICHEL KAHALEH:** If you take the approach of placing plastic stents, you have to come back. You have to do at least three to four sessions with upsizing and increasing the number of the stents, so that you don't have a choice.

With metal, you basically have two sessions. Session number one is placing the stent. Session number two is removing the stent. So it's pretty straightforward. If you present this to a patient from a very factual fashion, the reflex of the patient is that, I want the metal stent.

**JESUS GARCIA-CANO:** The strictures due to chronic pancreatitis place in the lower part of the common bile duct. So usually, you must insert biliary WallFlex, fully covered biliary WallFlex, in this way. If the patient has the gall bladder in place, you are able not to occlude the cystic orifice and produce cholacystitis. And usually, immediate drainage is accomplished immediately.

**ALI SIDDIQUI:** I think definitely that the maintenance of stricture resolution is superior when using the fully covered WallFlex as compared to plastic stents. Symptomatic relief of jaundice and possibly pain is maybe better with the fully covered metal stent versus the plastic stent, but those studies still need to be validated.

**MICHEL KAHALEH:** In a health care environment looking at decreasing costs, if you can resolve the same problem with less sessions, obviously everybody is going to love you. The patient is going to love you because they don't have to come back. Your insurance company will love you because they have less reimbursement to provide. And obviously, the hospital, because that's going to utilize less resources.