

Spyglass pre-oral pancreatoscopy and lithotripsy in patients with calcific chronic pancreatitis-associated abdominal pain. A case series.

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INTRODUCTION

- Patients with pancreatic ductal stones due to chronic pancreatitis may develop chronic abdominal pain not easily managed with medical therapy.
- Endoscopic, percutaneous, and surgical procedures have shown efficacy in the treatment of chronic abdominal pain due to ductal stones.
  - Surgery carries high morbidity and is usually reserved for patients refractory to endoscopic therapies.
  - Extracorporeal shock wave lithotripsy (ESWL) carries various disadvantages as in multiple sessions for complete duct clearance, further endoscopic retrograde cholangiopancreatography (ERCP) for stone removal, high costs, and low availability.
- Pre-oral pancreatoscopy-guided (POP) lithotripsy is a novel therapy were direct stone visualization aids electrohydraulic (EHL) or laser lithotripsy (LL) during a ERCP procedure.
- Although scarce information has been reported, recent studies describe:
  - Successful duct clearance between 43% - 100%
  - Clinical success in 90
  - Adverse event range between 0% - 13.5%.

OBJECTIVE

- To describe our experience with POP lithotripsy in three patients with calcific chronic pancreatitis (CCP) and chronic abdominal pain at our center in Monterrey, Mexico, were Spyglass pancreatoscopy has been recently implemented.

CASES

- Three patients with idiopathic CCP (figure 1, 2). Two with previous hospitalizations for intense abdominal pain 10/10 on Likert scale before procedure, managed with analgesics and one of them with previous ERCP and ductal stent placement.

Age / gender	Diagnosis	# stones / location	Treatment	Stone diameter
16 / m	Idiopathic CCP	3 / head of pancreas	PSt + PSp + LL Holmium 12 W 1.6 J 0.6 Hz + pancreatic stent	5mm, 5mm, 10mm
31 / m	Idiopathic CCP	2 / head of pancreas	St + Sp + EHL + stent	8mm
45 / m	Idiopathic CCP	>3 / head of pancreas	St + Sp + LL Holmium 400 4Hz + pancreatic stent	5mm
	*second session	1 / head of pancreas	LL Holmium 10 W 8/2 J/Hz + pancreatic stent	5mm

PSt: pancreatic sphincterotomy, PSp: Pancreatic sphincteroplasty, LL: laser lithotripsy, EHL: electrohidraulic lithotripsy

Figure 1

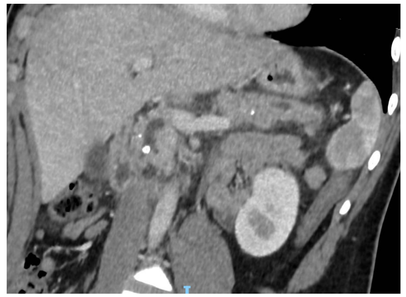


Figure 2

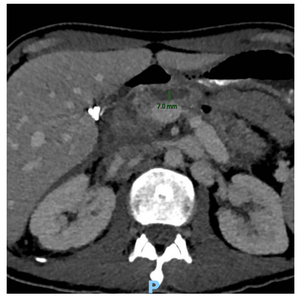
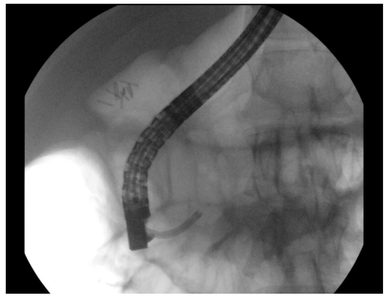


Figure 3



- All three patients managed with sphincterotomy and sphincteroplasty with balloon dilatation during ERCP, POP EHL or LL lithotripsy with Spyglass system and basket retrieval (figures 3-5).

RESULTS AND CONCLUSION

- Mean of 165 minutes of procedure.
- No adverse events found after 6 – 24 month follow up.
- Complete clinical success (pain improvement) after procedure.

Procedure time	Ad. E.	Duct clearance	F.H.
2 hr 50 min	No	Yes	No
2 hr 55 min	No	Yes	No
2 hr 05 min	No	No*	Yes**
2 hr 30 min	No	Yes	

Ad. E.: Adverse events, F.H.: Further hospitalizations

Figure 4

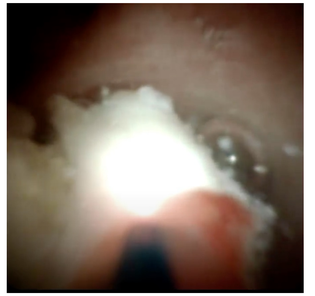
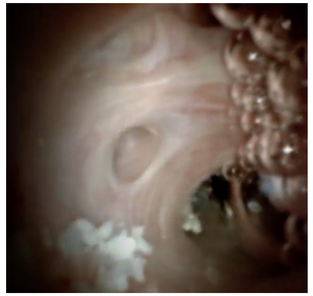


Figure 5



- **Patient required hospitalization for abdominal pain, managed with non-steroid anti-inflammatory drugs (NSAIDS). No further hospitalizations afterwards.
- Spyglass lithotripsy is effective for duct clearance and clinical success in CPP.