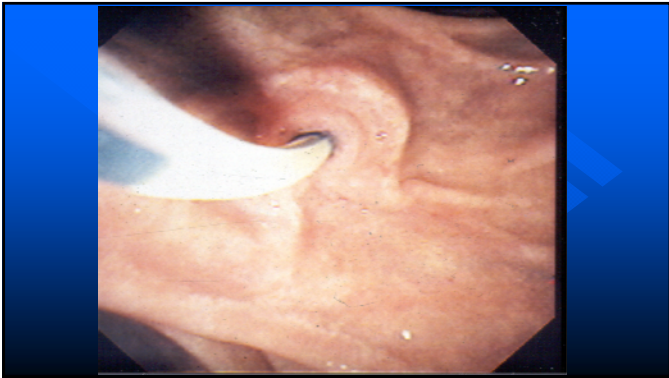
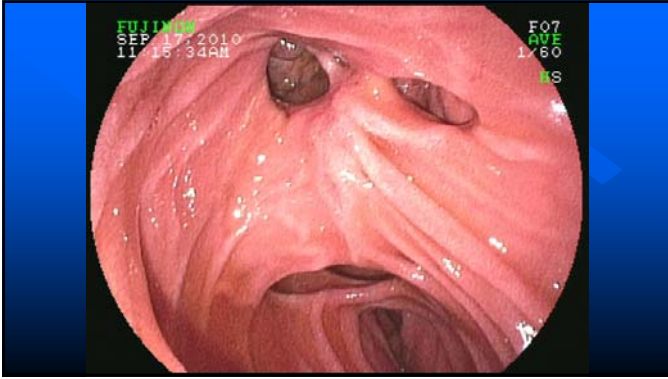
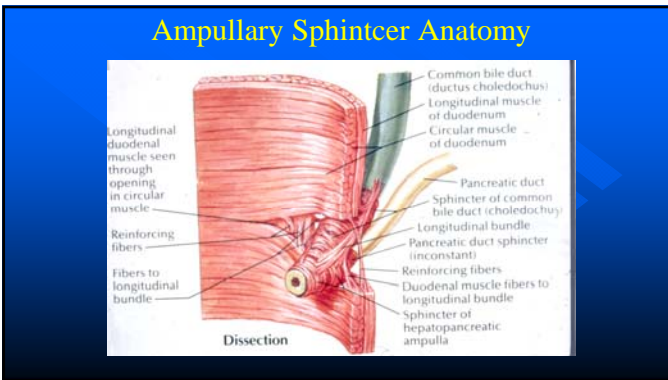


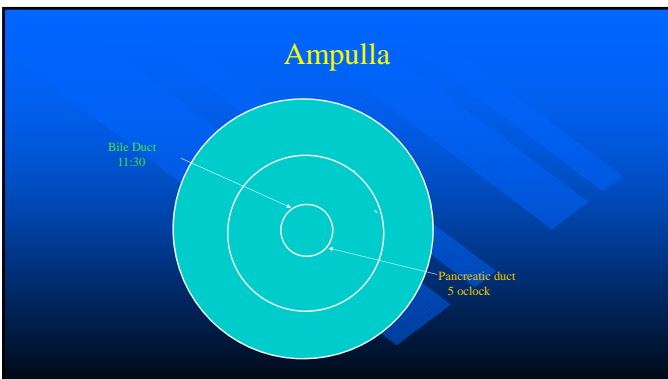
“We’re gonna help a lot of people today...”

- Topics (past)
- Cannulation Techniques
 - NI and Abn anatomy
 - Biliary strictures (benign & malig)
 - Stents (plastic & metal)
 - SOD
 - Recurrent pancreatitis

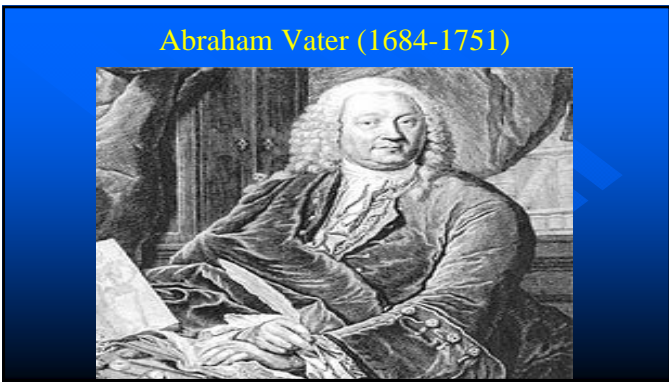


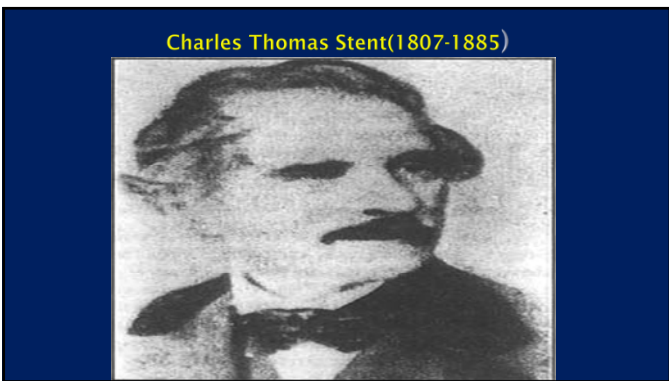


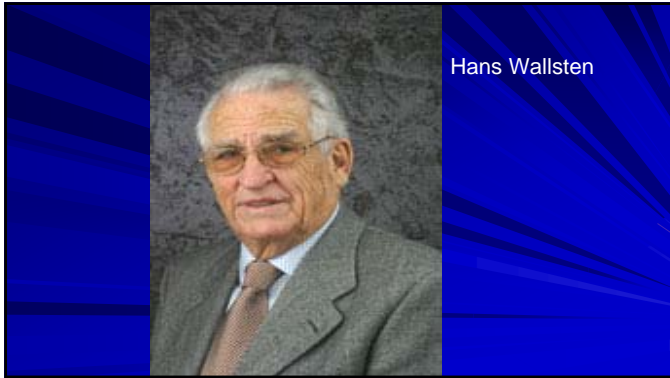














Diagnostic/Therapeutic ERCP

<u>Biliary</u>	<u>Pancreatic</u>
Obstruction	Acute pancreatitis
Benign stricture	Relapsing pancreatitis
Malignant	Microlithiasis
Stones	Pancreas divisum
Ductal injuries	Suspected SOD
Cholangitis	Suspected pancreatic ca
Ampullary Adenoma	IPMN
Suspected PSC	Chronic pancreatitis
Suspected SOD	Ductal injuries
Choledochal cysts	Cystic lesions

Topics (today)

- Indeterminant strictures
- Large/difficult stones
- Difficult pancreatic issues

Videos & Spyglass

Some Data...

- Chen YK, Pleskow DK Spyglass single-operator peroral cholangiopancreatography system...Gastrointest Endosc 2007; 65:832-41
- Siddiqui AA, et al Identification of cholangiocarcinoma by using Spyglass...Clinical Gastro Hepatol 2012;10:466-71
- Gutierrez OL, et al An International Multicenter Study on Digital Single Operator Cholangioscopy for Management of Difficult Bile Duct Stones in 271 Pts. Gastrointest Endosc 2017; 03: 1422
- Sejal DV, et al Prospective Evaluation of Digital Peroral Cholangioscopy for the Detection of Residual Biliary Stones...DDW 2017 Tu 1418
- Gutierrez OL, et al Efficacy and Safety of Digital Single Operator Cholangioscopy for Difficult Biliary Stones. Clinical Gastroent Hepatol 2017 ; Oct 28
- Buxbaum JL, et al Cholangioscopy Guided Laser Lithotripsy vs Conventional Endoscopic Therapy for Large Bile Duct Stones. DDW 2017 Abs Tu 1407
- Arnelo U, et al Single-operator pancreatoscopy is helpful in the evaluation of suspected IPMN. Pancreatolgy;14 2014: 510-14
- Rajjman I, et al Digital Single Operator Cholangiopancreatocope in the assessment of IPMN. Gastrointest Endosc Sa 1507; 83 2016 AB 277

Spyglass

- Conceived and started R&D- 1999
- Fiberoptic fiber bundle 0.035in 6000 fibers- 2002
- Testing on live anesthetized pigs- 2003
- 1st human studies- 2007
- Spy 1.5- 2009
- Digital Spyglass- 2015

Indeterminant Strictures

- Biliary stricture that has been brushed/Bx'd
- Benign
 - post-op PSC Mirizzi's Ch Panc AI Cholangitis
- Malignant
 - Ch Ca Panc Ca Metastatic Ca

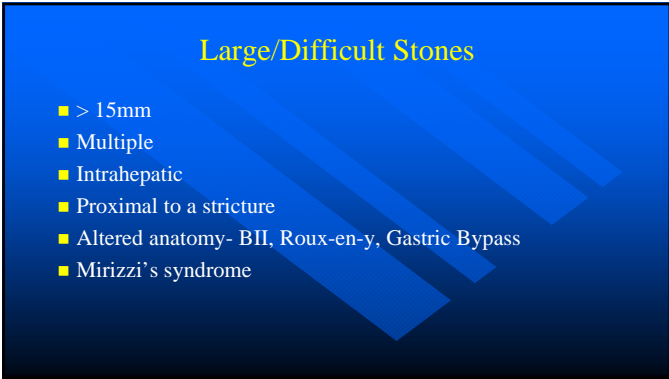
Stricture Diagnosis

- ERCP
 - Brush cytology- 20-30% sensitivity
 - Duct biopsy- 55-60% sensitivity
- Direct Cholangioscopy/ targeted biopsy- 67-90% sens
- EUS/FNA
 - Pancreatic mass- 70-85% sensitivity
 - Biliary strictures- 15-20% sensitivity
 - *- other modalities- intraductal US, CLE

Stricture Appearance

- Benign
 - smooth, pink-white, no vessels
- Malignant
 - ulcerated, friable, heaped up, tumor vessels







Difficult Pancreatic Issues

- Pancreatic cystic lesions
 - Serous cystadenoma, Pseudocyst, Mucinous cyst, IPMN
 - < 3cms and asymptomatic- follow in 6 mos
 - > 3cms or symptomatic- EUS/aspirate
- Panc Stones- intraductal
 - pain, obstruction, recurrent pancreatitis
- IPMN
 - Main duct or side branch

IPMN

- Main duct more likely to have malignancy than side branch
- May involve part or all of the pancreas
- Usually cystically dilated duct on CT
- Ampullary “fish-mouth” opening with mucin
- Bad Signs- mural nodules, assoc mass, elev CA19-9

Videos
