Elective Module: Gastrointestinal endoscopy

Introduction

Gastrointestinal endoscopy plays a pivotal role in the diagnosis and management of various gastrointestinal disorders, offering a minimally invasive means of visualizing and accessing the gastrointestinal tract. Among the diverse array of endoscopic procedures, upper gastrointestinal (GI) endoscopy, colonoscopy, and endoscopic retrograde cholangiopancreatography (ERCP) stand out as cornerstone modalities for the evaluation and treatment of gastrointestinal pathology.

Upper GI endoscopy, also known as esophagogastroduodenoscopy (EGD), involves the insertion of a flexible endoscope through the mouth to visualize the esophagus, stomach, and duodenum. It serves as a primary diagnostic tool for evaluating symptoms such as dysphagia, heartburn, and upper abdominal pain. Upper GI endoscopy enables direct visualization of the mucosa, allowing for the detection of abnormalities such as esophagitis, peptic ulcers, gastritis, and duodenal lesions. Moreover, it plays a crucial role in obtaining tissue biopsies, performing therapeutic interventions such as hemostasis for bleeding ulcers, and facilitating the placement of devices such as feeding tubes and stents.

Colonoscopy is a procedure that involves the insertion of a flexible colonoscope through the rectum to visualize the entire colon and terminal ileum. It serves as the gold standard for colorectal cancer screening and surveillance, allowing for the detection and removal of precancerous polyps and early-stage malignancies. Colonoscopy is also indicated for the evaluation of symptoms such as rectal bleeding, change in bowel habits, and unexplained abdominal pain. In addition to its diagnostic role, colonoscopy enables therapeutic interventions such as polypectomy, mucosal biopsy, and the control of gastrointestinal bleeding through techniques such as thermal coagulation and clip application.

Endoscopic retrograde cholangiopancreatography (ERCP) is a specialized procedure used for the diagnosis and treatment of biliary and pancreatic disorders. It involves the insertion of an endoscope through the mouth into the duodenum, followed by the cannulation of the bile and pancreatic ducts for contrast injection and imaging. ERCP allows for the visualization of the biliary and pancreatic ductal systems, facilitating the diagnosis of conditions such as choledocholithiasis, bile duct strictures, and pancreatic ductal abnormalities. Moreover, ERCP serves as a therapeutic modality for the management of biliary and pancreatic pathology, including stone extraction, stent placement, sphincterotomy, and drainage of pseudocysts.

1	Name of Block	Endo surgical Block 3rd floor, Dept of Gastroenterology Dept of Medicine, 2nd floor
2	Name of Elective	Gastrointestinal Endoscopy

In summary, upper GI endoscopy, colonoscopy, and ERCP are indispensable tools in the armamentarium of gastroenterologists, offer in both diagnostic and therapeutic capabilities for a wide range of gastrointestinal disorders. These procedures play vital roles in the early detection, evaluation, and management of gastrointestinal pathology, ultimately contributing to improved patient outcomes and uality of life.

3	Location of hospital Lab or research facility	Department of Medicine & Gastroenterology DMCH Ludhiana
4	Name of Internal preceptor(s)	Dr Vandana Midha
5	Name of External preceptor	Dr Ajit Sood
6	Learning objectives of elective	Types of Gastrointestinal Endoscopies Common conditions in which it is done Complications of the procedure Therapeutics in common conditions
7	Number of students that can be accommodated in this elective	Four
8	Prerequisites for elective	Knowledge of following topics : Upper GI Endoscopy Lower GI Endoscopy ERCP
9	List of activities of student participation	1. History taking and examination of patients listed for endoscopies 2. Attend and observe all the endoscopic procedures being done in the department 3. Present at least two cases that are fully worked up in the teaching Session 4. Participate in patient education and Multidisciplinary team meetings
10	Learning Resources	Harrison's textbook of Medicine Sleisenger textbook of gastroenterology Peter B. Cotton The Fundamentals of Practical GI Endoscopy
11	Portfolio entries required	Daily log of activities participated and examining and discussing cases of UGIE, LGIE and ERCP.
12	Log book entry required	Satisfactory completion of posting by a Preceptor with a "meets expectation 'M' Grade.

13	Assessment	Attendance Formative: Participation in Endoscopy lab, rounds and team activities. Presentation of worked up cases Documentation of attendance Required portfolio and logbook entries
14	Other Comments	
Week	**Activities**	

Week 1	**Basics of GI endoscopies** **T**ypes of endoscopies Pre requisites of the procedure Hemodynamics assessment before and after procedure **Indications of GI endoscopies** Dyspepsia Dysphagia Upper GI bleed Lower GI bleed Motility disorders Hepatobiliary disorders
Week-2	**Complications of GI Endoscopies** Bleeding Pain Perforations Pancreatitis Nosocomial infections **Therapeutics in Common conditions** Variceal banding Polypectomy Endoscopic sclerotherapy Endoscopic Hemoclipping APC Biopsies ERCP for choledocholithiasis ERCP for malignant EHBO