Introduction

Inflammatory bowel disease (IBD) is a genetic term used to describe two idiopathic disorders that are associated with gastrointestinal inflammation: Crohn's disease (CD) and ulcerative colitis (UC). These disorders need to be distinguished from other conditions that may display similar clinical and laboratory findings, such as infection, allergy, and neoplasm **(Khatter,2005).**

The ultimate definition of UC and CD rests with the location and characters of inflammation within the gastrointestinal tract. In UC, a relatively homogeneous process is confined to the mucosa, which starts in the rectum and involves a variable extent of colon proximally, while CD may involve any portion of the alimentary tract, from mouth to anus. Mucosal inflammation in CD may be generalized or patchy and may extend gradually into the submucosa, muscularis, and serosa. This transmural inflammation can result in further intestinal complications **(Simpkins&Gore,1994).**

The radiologic diagnosis of ulcerative colitis & Crohn's disease is challenging. It embraces a variety of examination techniques that must be performed & interpreted with care if the radiologist is to make a significant contribution to patient management. An understanding of the anatomic and patho-physiologic basis of the radiologic features of IBD is important to fully appreciate the natural history and differentiating features of these perplexing disease **(Karen&Frank and Elliot,2000).**

Radiographic imaging studies have an important role in the workup of patients with suspected IBD and in the differentiation of ulcerative colitis and Crohn's disease. The double-contrast barium study is a valuable technique for diagnosing ulcerative colitis and Crohn's disease even in patients with early disease. In contrast, cross-sectional imaging studies such as CT ,MR, and ultrasound are useful for showing the effects of these conditions on the wall of the bowel and also for demonstrating intra-abdominal abscesses and other extraluminal findings in patients with more advanced disease. Thus, barium studies and cross-sectional imaging studies have complementary roles in the evaluation of these patients **(Nikolaus&Schreiber, 2007).**

Early manifestations of IBD such as enlarged lymphoid follicles, erosions, and aphthoid ulcers are well appreciated at colonography and barium studies **(Nikolaus&Schreiber, 2007).**

With the introduction of spiral scanning then multidetector (multislice) technologies, the accuracy for diagnosing digestive tract diseases with CT has been highly improved, and CT is used more and more in the evaluation of patients with suspected gastrointestinal disorders. CT is able to demonstrate both the intramural and the extramural components of the disease, and has a major role in the preoperative staging and the follow-up. Improvements of CT protocols, such as CT-enteroclysis, or multiplanar 2D and 3D post-processing, including new techniques for "virtual endoscopy", lead to discuss new indications in which CT could now compete with conventional X-rays series (Bouhnik ,2005).

Multi-detector row helical CT enteroclysis is well tolerated and allow the diagnosis of small-bowel masses and active Crohn's disease. The sensitivity, specificity, accuracy, positive predictive value, and negative predictive value of multi-detector row helical CT enteroclysis were 100%, 95% ,97% ,94% and 100% respectively **(Hirschowitz&Modlin,2002).**

Multi-detector CT angiography has an important role in detection of early changes in ischemic enteritis occurring secondary to superior mesentric vessels occlusion which is an important differential diagnosis for Crohn`s disease. These changes appear in the form of segmental thickening more than 3mm and mesentric fat infiltration by odema which is more with venous thrombosis **(Horton,2001)**