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# Role of Multislice Computed Tomography in Evaluation of Crohn's Disease

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Crohn's disease is one of the major idiopathic causes of IBD and it should be distinguished from ulcerative colitis and other conditions; which may display similar clinical and laboratory findings as infection and neoplasm. Crohn's disease may involve any portion of the alimentary tract from mouth to anus. Mucosal inflammation may be generalized or patchy, and may extend gradually into the submucosa, muscularis and serosa, which may result in intestinal complications; whereas in ulcerative colitis a homogenous inflammatory process is confined to mucosa and starts in the rectum; but may involve any portion of the alimentary tract as well. The diagnosis of Crohn's disease is a challenging; as it constitutes a variety of examination techniques that must be performed. Full understanding of the anatomic and pathologic basis of the radiologic features of Crohn's disease is important to appreciate the natural history and differential diagnosis of this disease. Radiologic studies have an important role in the diagnosis of patients with suspected Crohn's disease and also in the differential diagnosis because of their ability to assess fine mucosal details. Cross sectional imaging, as CT and MRI, have important role in the evaluation of Crohn's disease. Double contrast barium studies is a valuable technique in diagnosis of Crohn's disease and ulcerative colitis in patients with early disease; whereas cross sectional imaging are valuable for showing the effects of this disease on the wall of the bowel and diagnosis of their intra-abdominal complications in patients with more advanced disease. Colonoscopy and barium studies can diagnose early manifestations of Crohn's disease as erosions, aphthous ulcers and enlarged lymph nodes. MRI can detect variations in bowel wall thickness and contrast enhancement, and it could be the imaging technique of choice for follow up of patients with active IBD due to its lack of the ionizing radiation. Multi slice CT allows the diagnosis of Crohn's disease and small bowel masses with 100% sensitivity, 95% specificity, 97% accuracy, 94% positive predictive value and 100% negative predictive value. With CT colonography, the walls of the bowel segments, which were severely affected by the disease, were illustrated by axial CT. Summary- 106 -scans. Air filled sinus tracts, loss of haustrations, pseudo-polyps and deep ulcers are seen in CT colonography. The conclusion is that MSCT is a reliable advanced non-invasive technique for diagnosis and evaluation of Crohn's disease. But it can't detect the early changes of the disease. So CT is essential in assessment of extra-luminal extension, abscess, fistula and other complications of Crohn's disease; whereas barium studies and endoscopy have a limited value.