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ROLE OF CT SCAN IN ASSESSMENT OF APPENDICITIS

INTRODUCTION:

Appendix, formally vermiform appendix, in anatomy, a vestigial hollow tube that is closed at one end and is attached at the other end to the cecum, a pouchlike beginning of the large intestine into which the small intestine empties its contents. It is not clear whether the appendix serves any useful purpose in humans. Suspected functions include housing and cultivating beneficial gut flora that can repopulate the digestive system following an illness that wipes out normal populations of these flora; providing a site for the production of endocrine cells in the fetus that produce molecules important in regulating homeostasis; and serving a possible role in immune function during the first three decades of life by exposing leukocytes (white blood cells) to antigens in the gastrointestinal tract, thereby stimulating antibody production that may help modulate immune reactions in the gut. While the specific functions of the human appendix remain unclear, there is general agreement among scientists that the appendix is gradually disappearing from the human species over evolutionary time. Blockage of the appendix can lead to appendicitis, a painful and potentially dangerous inflammation.

The appendix is usually 8 to 10 cm (3 to 4 inches) long and less than 1.3 cm (0.5 inch) wide. The cavity of the appendix is much narrower where it joins the cecum than it is at its closed end. The appendix has muscular walls that are ordinarily capable of expelling into the cecum the mucous secretions of the appendiceal walls or any of the intestinal contents that have worked their way into the structure. If anything blocks the opening of the appendix or prevents it from expelling its contents into the cecum, appendicitis may occur. The most common obstruction in the opening is a fecalith, a hardened piece of fecal matter. Swelling of the lining of the appendiceal walls themselves can also block the opening. When the appendix is prevented from emptying itself, a series of events occurs. Fluids and its own mucous secretions collect in the vessels of the appendix become closed off, which causes the necrosis (death) of appendiceal tissue. Meanwhile, the bacteria normally found in this part of the intestine begin to propagate in the closed-off pocket, worsening the inflammation. The appendix, weakened by necrosis and subject to increasing pressure from within by the distention, may burst, spilling its contents into the abdominal cavity and infecting the membranes that line the cavity and cover the abdominal organs (*see* peritonitis). Fortunately, peritonitis is usually prevented by the protective mechanisms of the body. The omentum, a sheet of fatty tissue, often wraps itself around the inflamed appendix, and an exudate that normally develops in the areas of inflammation behaves like glue and seals off the appendix from the surrounding peritoneal cavity. (1)

Appendicitis is an inflammation of the appendix, a finger-shaped pouch that projects from your colon on the lower right side of your abdomen. Appendicitis causes pain in your lower right abdomen. However, in most people, pain begins around the navel and then moves. As inflammation worsens, appendicitis pain typically increases and eventually becomes severe. Although anyone can develop appendicitis, most often it occurs in people between the ages of 10 and 30. Standard treatment is surgical removal of the appendix.

LITERATURE REVIEW :

- Appendicitis is a common condition, occurring in 250,000 patients every year in the United States and accounting for an estimated 1 million hospital days per year. Acute appendicitis is the most