

**RAJIV GANDHI INSTITUTE OF MEDICAL SCIENCES :: ONGOLE
PRAKASAM DISTRICT**

The C.M.E. Programme is conducted in RIMS., Ongole on 01.09.2013 between 9.00 A.M. to 4.00 P.M.

Speaker: Dr.T. Rama Prasad,
Professor of Surgery.

Chairman: Dr.K.C.T. Naik,
Associate Professor of Surgery.

Co-Chairman: Dr.D. Lokanadham,
Associate Professor of Surgery.

Topic: **APPENDICITIS**

Introduction: Appendicitis is an acute, preventable and life threatening inflammatory disease of the appendix. It is caused by various types of aetiological factors. It is having varied presentation like fever, vomiting, and pain abdomen particularly confining to right iliac fossa. The pain abdomen varies depending on the different positions of the appendix during the initial stages. High index of suspicion of appendicitis is very important whenever a patient comes to us with the above problems. It starts as a simple pain abdomen, sometimes it may be life threatening if institution of treatment is delayed. All the patients, who come with fever, vomiting and pain abdomen should be examined thoroughly by way of clinical evaluation and ultra sound examination for confirmation of the disease. Early intervention is very important to save the life of the patient.

Appendicitis is the most common surgical condition in children and adolescents which may require emergency surgical abdominal operation.

The highest incidence is seen in between 10 and 12 years.

The incidence of perforation ranges between 10 and 50%.

Patho pathology:

Luminal obstruction is the most common cause of acute appendicitis. The most common cause of obstruction is from inspissated fecal material (appendicolith).

- Bacterial or viral infections can cause peri appendiceal lymphoid hyperplasia results in extrinsic compression leading to luminal obstruction.
- Obstruction leads to increased intraluminal pressure secondary to increased mucus production and venous engorgement. This leads to thrombosis of microvasculature within the wall of the appendix.
- Vascular thrombosis with subsequent ischaemia leads to necrosis and ultimate perforation of the appendiceal wall.
- Luminal bacteria like Escherichia Coli; Bacteroides fragilis, pseudomonas are ____, and clostridium species, proliferate and traverse the appendiceal wall. The events results in an acute infection, gangrene, and ultimately perforation.

Clinical features:

The classical presentation is of periumbilical pain that migrates to..

The inflamed appendix activates visceral afferent fibres that enter the spine at the level of T₁₀, causing a vague pain that is referred to the umbilical area. As the inflammation spreads _____ and reaches the parietal peritoneum, the peritoneal somatic afferent fibres become involved. It causes localisation pain to the vicinity of appendix i.e., at Mc Burney's point. This pain is located in the lower quadrant, two thirds of the distance between the umbilicus and anterior superior iliac spine. The pain may be located in the right upper quadrant, the right flank, or the suprapubic area, depending on the location of the appendix in the abdomen.

In situs inversion, the pain may be felt in the epigastrium or left lower quadrant.

If the inflamed appendix is near to the bladder, the inflammation may result in symptoms similar to those urinary tract infection.

- Nausea and vomiting are associated with appendicitis
- Aurora is mainly seen in children
- Diarrhoea can also occur in appendicitis in children.
- Perforation can occur between 36 to 48 hours of symptoms.
- Appendicitis in infants is difficult to diagnosis.

The common symptoms of appendicitis in infants are irritability, lethargy, fever, anorexia and vomiting. The child may develop generalized peritonitis after perforation.

Examination of the patient:

Careful evaluation of the patient is very essential to diagnose a case of appendicitis.

- Appendicitis has a classical features.
- The pain starts insidiously in the periumbilical region and gradually localizes to the right lower quadrant.
- Rovsing's Sign: Palpation the left iliac fossa causes pain in the right iliac fossa.
- Psoas Sign: Extension of Right hip causes pain in the right iliac fossa.
- Obturator Sign: Internal rotation of the flexed right thigh causes pain in the Right iliac fossa.

Samuel Pediatric Appendicitis Score (PAS) System:

Finding	Score
Symptoms	
Migration of pain	1
Anorexia	1
Nausea / emesis	1
Signs	
Tenderness in right lower quadrant	2
Cough/ percussion / hopping tenderness	2
Fever $>38^{\circ}$ C	1
Laboratory studies	
WBC $>10,000$ Cells/ml	1
Polymorpha nuclear neutrophilia $>500/ml$	1

Score ≤ 2 : Patient can be discharged

Score 3-6: Further evaluation

Score 7 or more: Immediate operation.

Diagnosis:

Blood: TI, DC, ESR, CRP are important in infants with appendicitis.