

Appendicitis

The appendix is a hollow pouch about the length of the middle finger projecting from the edge of the colon. It is unclear what the exact role of the appendix may be especially in children and young adults. However, there are no major long term complications of its removal known at this time.

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What causes Appendicitis?

The cause is thought to be multifactorial. Obstruction of the lumen by faecal matter or thick mucus and bacterial leads to increased intraluminal pressure (Yang, et al., 2015). Inflammation or swelling of the appendix occurs as bacteria multiply in its lumen recruiting white blood cells and leading to pus formation.

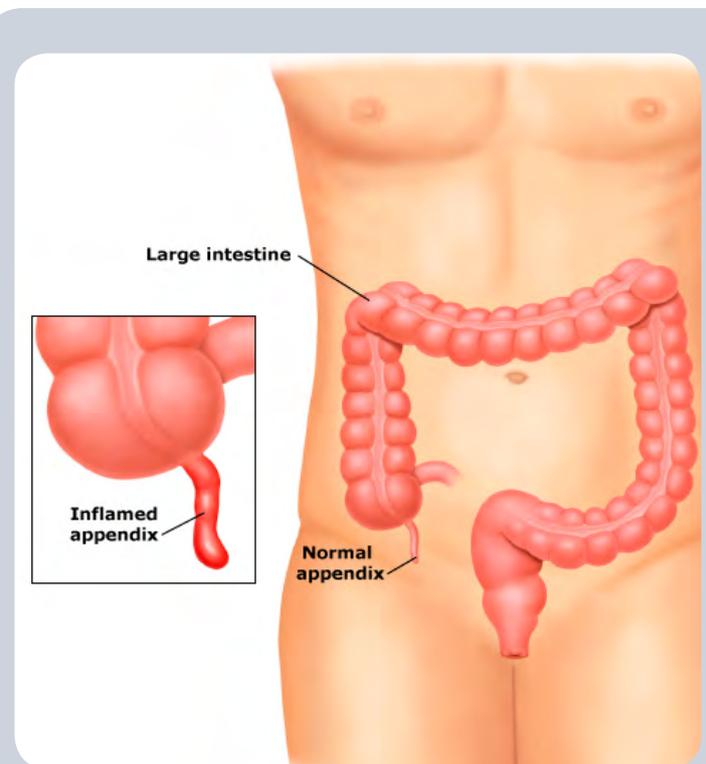
With this accumulation of purulent material, the intraluminal pressure increases leading to ischemia, necrosis and eventual rupture. Rupture can either lead to a contained abscess or a widespread soiling of the abdominal cavity (peritonitis) which in turn leads to sepsis and may be life threatening. The condition is therefore an emergency and thus a non-designated service provider may be used.

What is the incidence of Appendicitis?

Appendicitis affects both men and women, young and old and people from all racial backgrounds. (Carr, 2000). It is thought that a westernized diet with less dietary fibre increases the risk of appendicitis developing. Longer stool transit times were attributed to increased incidence of appendicitis.

What are the symptoms of Appendicitis?

- Right lower abdominal pain which may later become generalized.
- Difficulty in walking upright due to pain
- Fever
- Nausea and vomiting
- Diarrhoea or constipation
- Loss of appetite
- Abdominal tenderness.



A picture of an inflamed and a normal appendix*

It is important to seek treatment early as undue delay may lead to complications.

How is Appendicitis diagnosed?

Appendicitis is usually diagnosed based on history and examination, but the following investigations may help confirm the diagnosis:

- White blood cell count is usually elevated,
- Urinalysis,
- Abdominal x-ray,
- Barium enema, and sometimes sonar.

No tests will conclusively diagnose appendicitis and it almost always presents in a similar fashion to a lot of other conditions especially in females. The doctor may therefore decide to observe for a short period while monitoring. Conditions that may mimic appendicitis in presentation include: Pelvic inflammatory disease, Ectopic pregnancy, Merkel's diverticulitis, and Kidney disease. The position of the appendix also vary markedly in different individuals, further making diagnosis difficult.

What must be fully funded under PMB level of care?

Prescribed Minimum Benefits (PMB) refers to the benefits as stated in Section 29 (1) (o) of the Act. Appendicitis is a prescribed minimum benefit condition with treatment DTP 9F listed as appendectomy. The administration of antibiotics does not constitute PMB level of care.

Generally, appendicitis is managed surgically via two approaches, i.e. open surgery and laparoscopic surgery. Majority of appendectomy in South Africa are done using open surgery.

Studies have shown that both methods do not differ significantly in terms of outcomes but the laparoscopic approach is done at a much higher cost and is not the prevailing level of care in the public health sector. It is therefore not PMB level of care.

Complicated appendicitis with perforation or abscess are also better managed via an open incision. The Laparoscopy approach on the other hand, has the advantage of a shorter hospital stay.

Generally, a course of preoperative antibiotics is given prior to surgery. During appendectomy, a small skin incision is made over the point of maximum tenderness and the layers of the abdominal wall until the appendix is reached and visualized.

The area around the appendix is examined to make sure there are no other problems and then the wound is closed.

What are the complications of Appendectomy?

Occasionally, the inflammation and infection may be so severe that the surgeon may not close the wound after the removal of the appendix but rather elect to return a few days later after administering a course of intravenous antibiotics, to close the wound.

This is common in cases of appendicular abscess or perforation. The patient in this instance is often sicker and have longer hospital stay post operatively.

References

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- Yang, E., Khan, D. & Cook, C. (2015). Acute appendicitis in South Africa - A systematic review. *South African Journal of Surgery*, 53(1):3-4.

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