



## Trends of Negative Appendectomy rate at a University Hospital; does pre-operative imaging play a role?

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### Abstract:

**Objective:** To determine the trend of the negative appendectomy rate and its' relationship with radiological imaging in patients presenting with right iliac fossa pain.

**Methodology:** Patients who underwent appendectomy were identified using our electronic theatre database. Data regarding age, sex, histology, inflammatory markers, imaging, length of stay, readmission and any alternative diagnosis were collected retrospectively from January 2015 to June 2018.

**Results:** 802 patients were identified during the study period. 132 patients (16.5%) had a histologically normal appendix.

We found a consistent decrease in the negative appendectomy rate of 20.9%, 18.1%, 14.0% and 6.3% in the years 2015, 2016, 2017 and 2018 respectively. The use of imaging has been variable at 78%, 75%, 66% and 83% in the years 2015, 2016, 2017 and 2018, respectively. Males more commonly underwent an appendectomy comparing to females (53.6% versus 46.4%). However, females accounted for 69.7% of cases of negative appendectomy.

In the negative appendectomy group, 67.5% male did not have any imaging done in contrast to 7.6% females. The most common imaging modality used was ultrasound scan (52%). Computed tomography (CT) was performed in 9% of patients. 13% of patients had both ultrasound and CT scan.

**Conclusions:** There has been a decreasing trend in our negative appendectomy rates. However, there is no clear relationship between the use of imaging and negative appendectomy rate. Risk-benefit assessment of each patient should be carried out individually prior to imaging. We also recommend that scoring systems such as Appendicitis Inflammatory Response (AIR) and Alvarado prediction scores be used regularly along with consideration



given to imaging.

### Biography:

Mohammad Hasan is a doctor in Department of Surgery, Aberdeen Royal Infirmary, and Aberdeen, UK

### Publication of speakers:

1. Shadman, Mohammad & Badizad, Mohammad & Dehghanizadeh, Mostafa & Dehaghani, Amir. (2020). Developing a novel colloidal model for predicting asphaltene precipitation from crude oil by alkane dilution. *Journal of Molecular Liquids*. 113879. 10.1016/j.molliq.2020.113879.
2. Badizad, Mohammad & Koleini, Mohammad & Greenwell, Hugh & Ayatollahi, Shahab & Ghazanfari, Mohammad Hossein. (2020). A Deep Look into Dynamics of Saltwater Imbibition in a Calcite Nano-Channel: Temperature Impacts Capillarity Regimes. *Langmuir*.
3. Hasan, Mohammad & Javed, Yousuf & Farooq, Ayesha. (2020). Understanding survival challenges of Tamil Nadu leather industry through content analysis and AHP. 41. 411-419. 10.1080/02522667.2020.1723937.
4. Dehaghani, Amir & Badizad, Mohammad. (2019). Impact of Ionic Composition on Modulating Wetting Preference of Calcite Surface: Implication for Chemically Tuned Water Flooding. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*. 568. 10.1016/j.colsurfa.2019.02.009

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