"Is Abnormal Radiology a Good Predictor of Endoscopic Findings?"

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Background

105,541 OGDs, colonoscopies and sigmoidoscopies were performed in 2018 throughout 42 centres in Ireland.
Imaging modalities are increasingly being utilised to aid the diagnostic process for patients presenting with GI symptoms, increasing the likelihood of detecting abnormalities in the GI tract (GIT). A common indication for GI endoscopy is abnormal radiology.
Given limited resources, solutions need to be found to reduce the burden on endoscopy services.

Objective

To assess the correlation between abnormal imaging and endoscopic findings.

Methods

A retrospective descriptive study was performed. All patients referred with abnormal radiology as the indication for lower GI endoscopy in Louth County Hospital (LCH) between 2013 and August 2020 were included.
Data, including; patient demographics, modality of imaging, results of imaging, indication for endoscopy, and results of endoscopy were collected using electronic patient records.
Endoscopic findings were compared with radiology reports.
Analysis was performed using Microsoft Excel v2016.

Results:

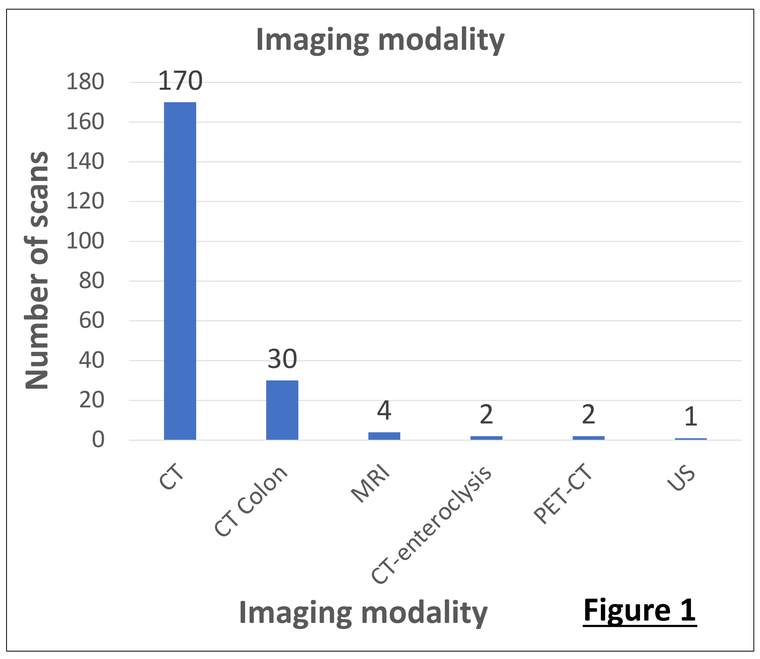

Figure 1

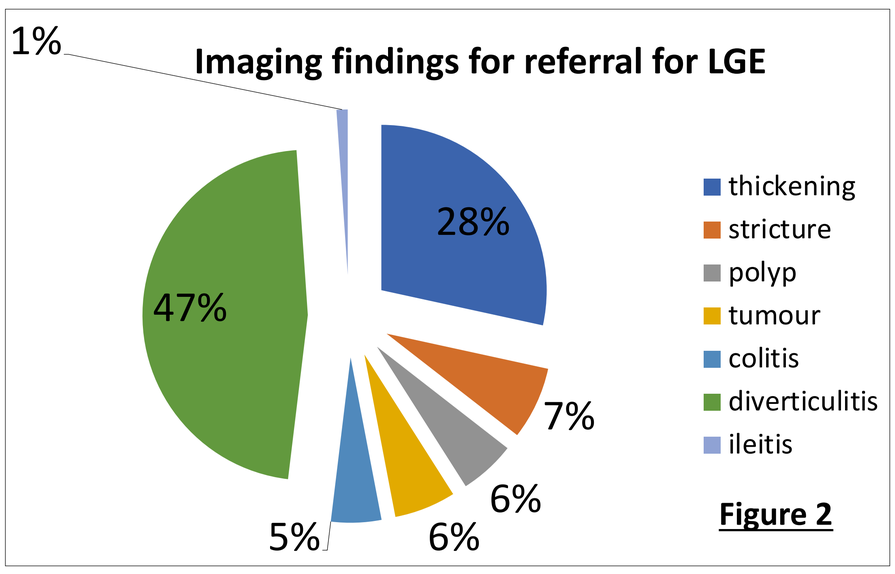

Figure 2

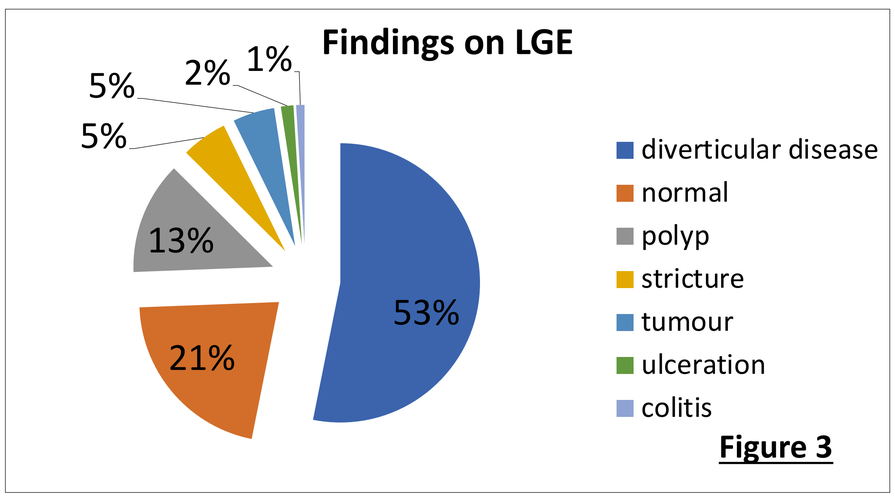

Figure 3

- Total number referred with abnormal radiology: 234 patients
  - Excluded: 50 patients
    - 17 – radiology not available
    - 7 – failed procedure.
    - 29 due to unclear indication.
  - Included: 184 patients
    - 152 colonoscopies
    - 32 sigmoidoscopies

- Colonoscopy group (n= 172)
  - 39.52% Males (n=83)
  - Mean age: 60 years (19-88 years)
  - Mean waiting time 86.3 days (13 – 218)

- Sigmoidoscopy group:
  - 78.12% Males (n=25)
  - Mean age: 65 years (33-89 years)
  - Mean waiting time 128 days (11- 823)

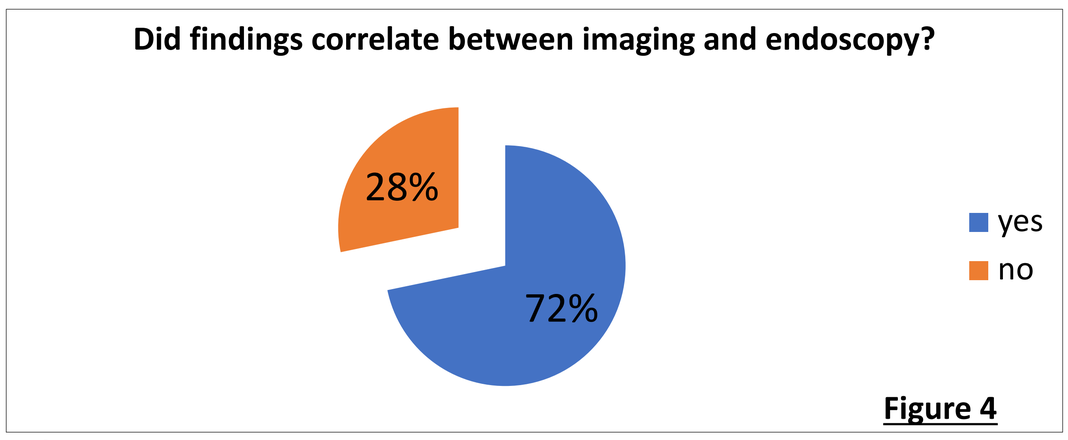

Figure 4

Conclusion

In our patient cohort 71% of endoscopic findings correlated to radiology findings (Figure 4).

The most common abnormality on radiology referred for lower GI endoscopy was diverticulitis (n=86, 41.15%) (Figure 3). A tumour was identified endoscopically in one of these patients (1.16%). No other suspicious endoscopic findings were detected. The need for endoscopy post an episode of uncomplicated diverticulitis without suspicious features is questionable. Current practice guidelines do not recommend routine endoscopy post uncomplicated diverticulitis. [1] In some studies, the risk of advanced neoplasia post uncomplicated diverticulitis is equivalent to the risk of colorectal cancer in the general population. [2] As such, are these colonoscopies truly warranted?

59% of radiology findings suggestive of thickening, colitis or strictures correlated with endoscopic findings. In the appropriate clinical context, not all patients with such features on radiology require endoscopic and histological diagnoses.

Further assessment is recommended to identify specific imaging abnormalities that benefit from endoscopy allowing appropriate use of our limited resources.

The limitation of this study is the analysis of data without adjusting for confounding factors, such as patient, radiology and endoscopic factors. Additional investigation taking into account such variables is required.

References

[1] 1.You H, Sweeny A, Cooper ML, Von Papen M, Innes J. The management of diverticulitis: a review of the guidelines. Med J Aust. 2019 Nov;211(9):421-427. doi: 10.5694/mja2.50276. Epub 2019 Jul 28. PMID: 31352692.
[2] Ng ZQ, Moe KS, Wijesuriya R. Routine Colonoscopy After Acute Diverticulitis: is it Warranted? Surg Laparosc Endosc Percutan Tech. 2019 Dec;29(6):462-466. doi: 10.1097/SLE.0000000000000680. PMID: 31107852.