

The value of colonoscopy in isolated abdominal pain

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Background

- Abdominal pain is a commonly reported symptom in the general population
- 26% report pain on 6 or more occasions per year¹
- Most commonly reported symptom in patients undergoing colonoscopy²

Background

- Abdominal pain correlates poorly with significant intra-colonic pathology (such as cancer or high grade polyps)
 - Systematic Review- Abdominal pain and cancer DOR 0.7³
- Abdominal pain accounts for the 3rd most common referral to endoscopy clinics⁴

Background

- Limited data on the yield of colonoscopy in investigating abdominal pain
- No evidence in the Australian setting
- No evidence detailing the complications resulting from colonoscopy for abdominal pain.

Aim

- To assess the yield and complication rate of colonoscopies performed for isolated abdominal pain within an Australian regional hospital setting

Methodology

- Single center retrospective observational study
- Study Cohort:
 - All patients undergoing colonoscopy between December 2010 and May 2012
- Data collection
 - By lead and associate author
 - Chart review
 - Inclusion into study determined by lead author

Methodology

- Inclusion Criteria:
 - Elective referral for a colonoscopy for isolated abdominal pain (left/right/non specific)
 - +/- NHMRC Category 1 or 2 Family history
 - Complete Colonoscopy – appendiceal orifice +/- ileocaecal valve identified
 - Prep “good” or better

Methodology

- Exclusion Criteria:
 - Rectal Bleeding
 - Change in bowel habit
 - Weight loss
 - Prior history of colonic polyps or colorectal cancer
 - NHMRC Category 3 family history
 - Incomplete colonoscopy
 - Prep “Fair” or “Poor”

Methodology

- Primary End-points:
 - Diagnostic yield of colonoscopy in isolated pain
 - Cancer
 - Diverticulosis
 - Polyposis
 - Other pathology i.e. Inflammation etc.
- Secondary End-points:
 - Complications

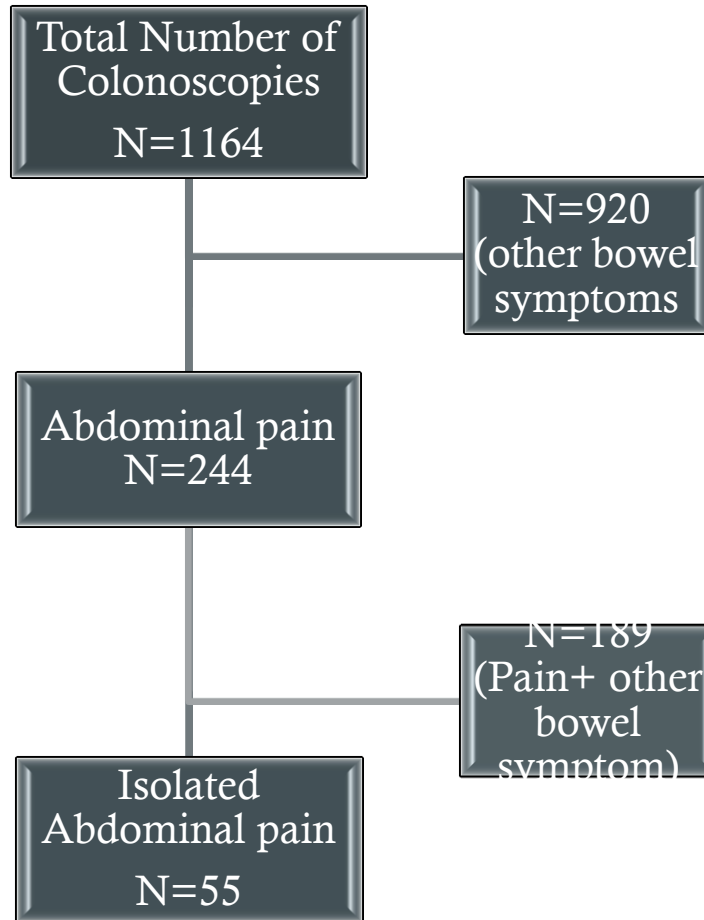
Methodology

- Study control and oversight:
 - Data inclusion by Lead author only
 - Study supervisor input into design design and data analysis
 - Institutional review
 - Ethical Approval by Townsville Human Research Ethical Committee
 - Mackay Health Service Executive Board

Methodology

- Statistical Analysis :
 - Queensland Institute for Medical Research
 - Patients were grouped into age brackets (<50, 50-64, 65+)
 - Chi Square tests were used to identify variables related to yield of colonoscopy
 - Variables with a Chi square significance < 0.15 were included as predictors for binary logistic regression.

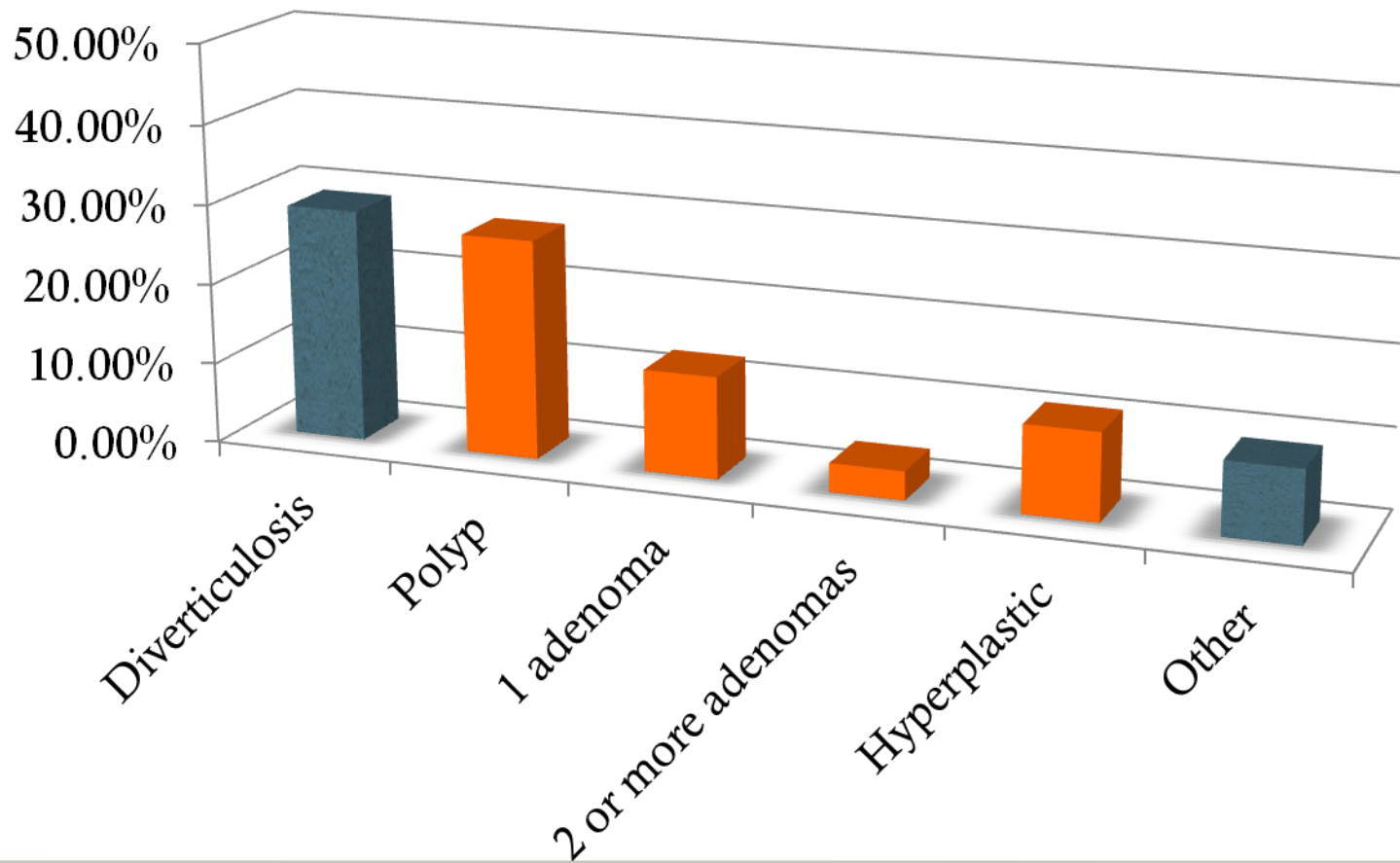
Results



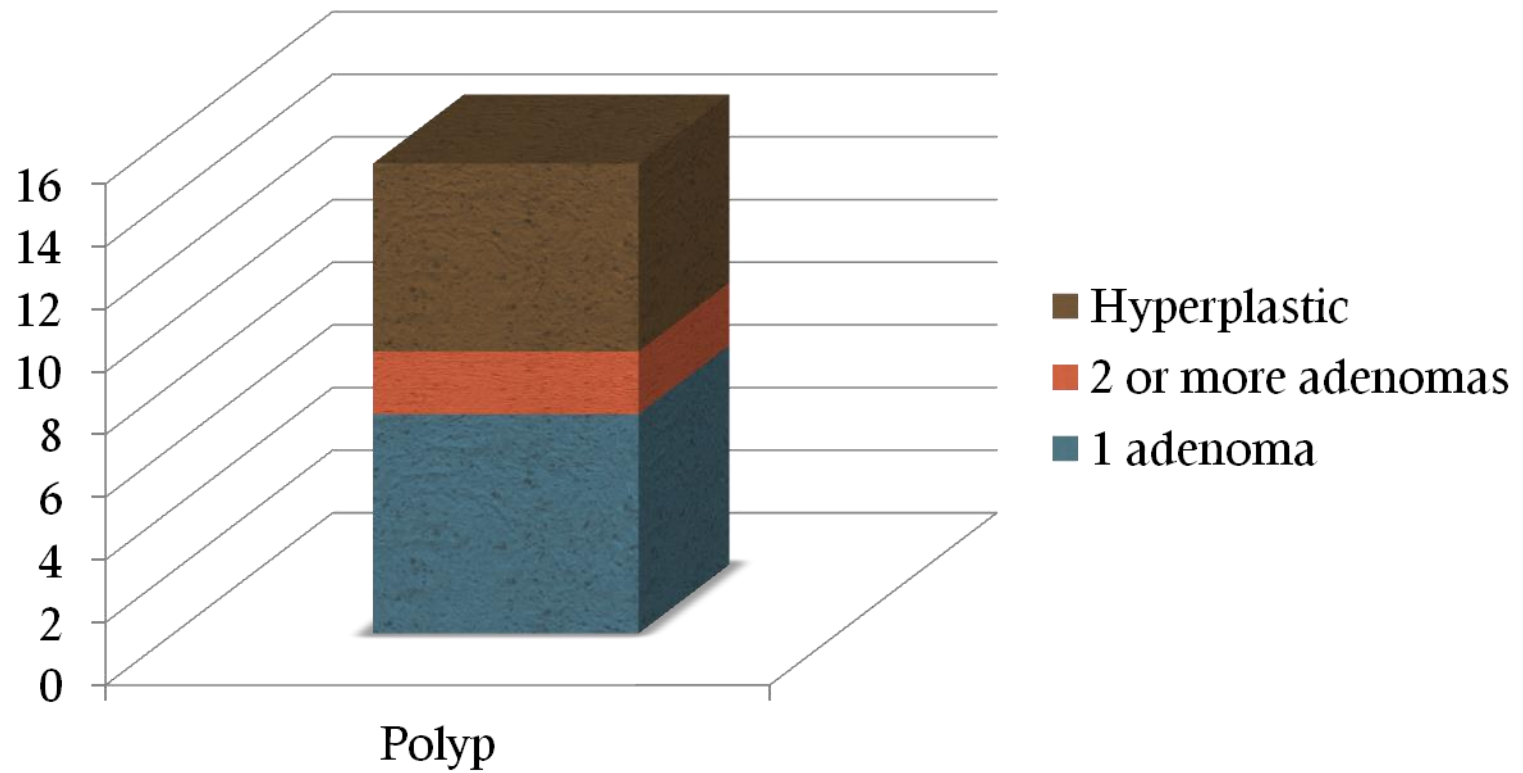
Results

- Average Age: 53.5 years (18-82)
- No significant pathology found
 - Cancer
 - Inflammatory bowel disease
 - High grade polyp
- 50.9 % of patients had a **normal** colonoscopy

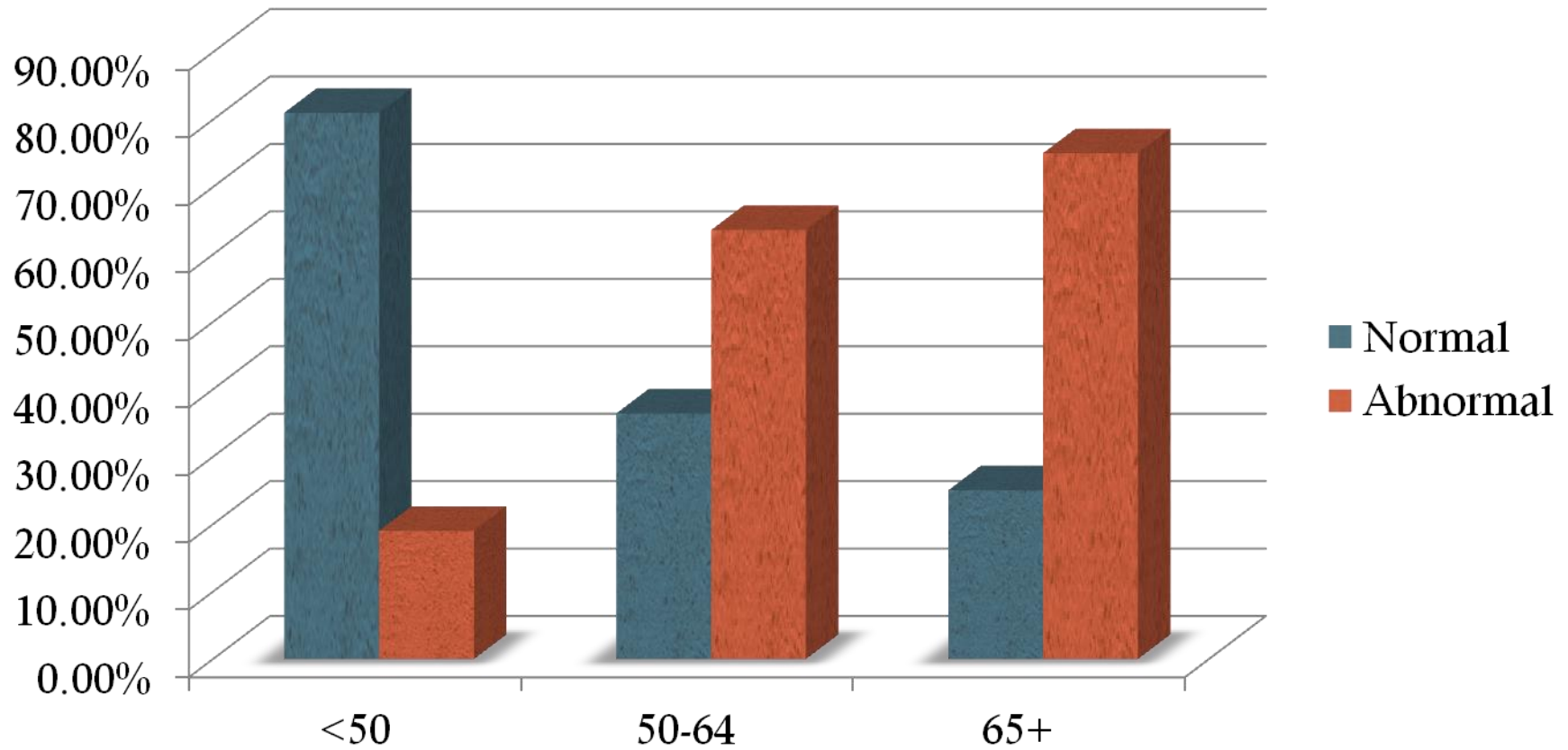
Incidental Pathology



Polyps

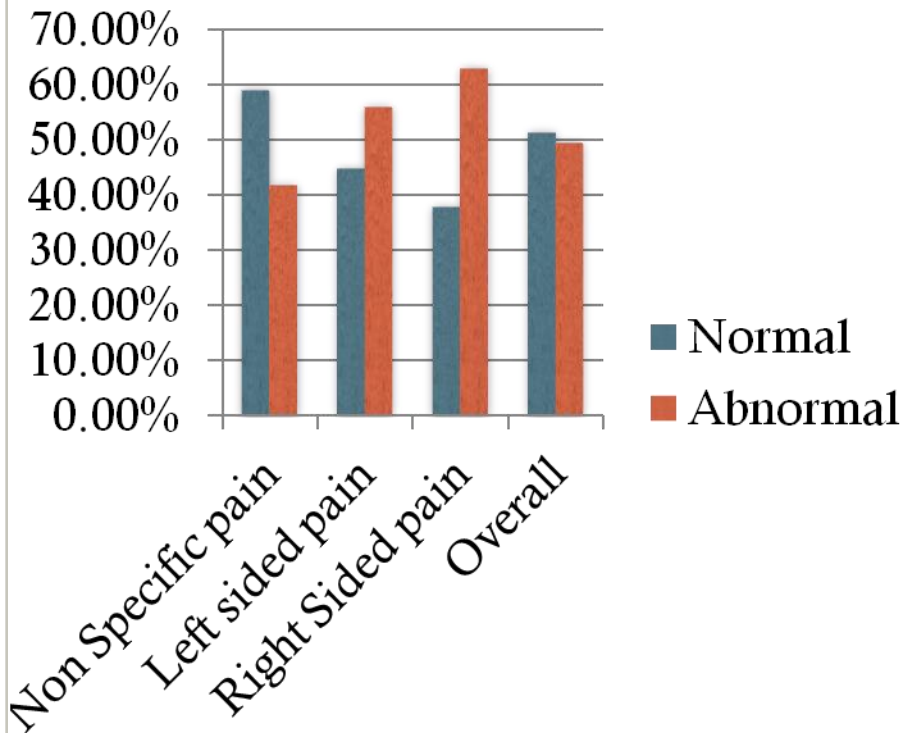


Relationship between age and normal colonoscopy

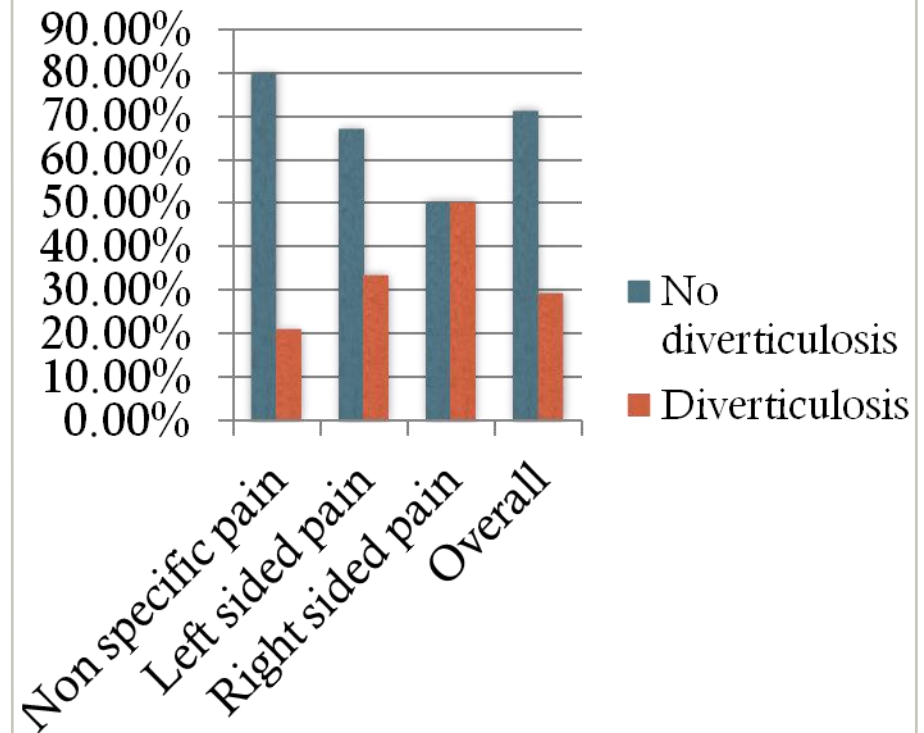


Relationship of Abdominal pain location to pathology

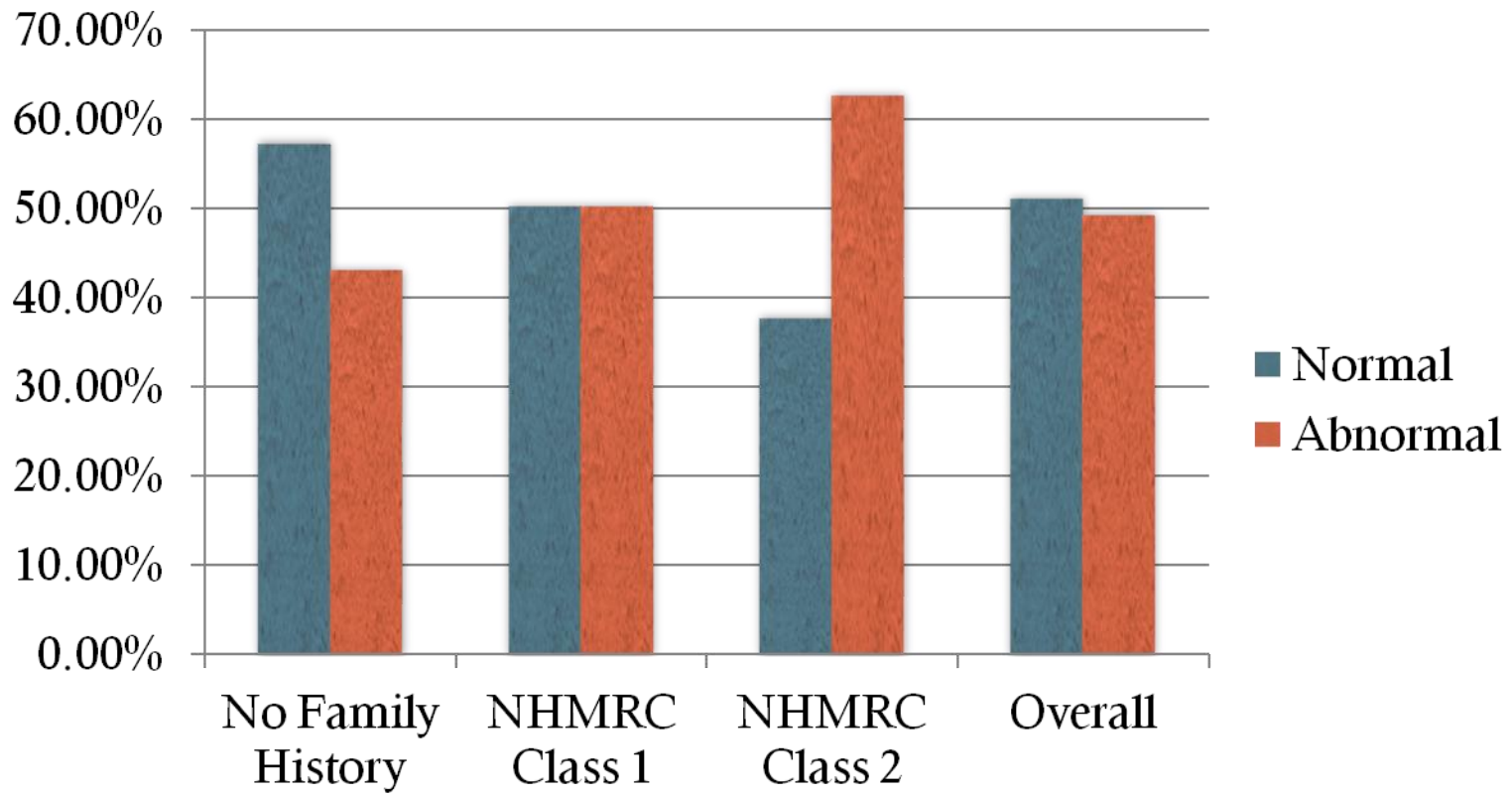
All pathology



Diverticulosis



Relationship of Family History to Pathology



Results

- Complications:
 - 1/55 patients suffered a perforation
 - Complication rate 1.8%

Conclusion

- Abdominal pain accounts for a significant proportion of referrals to the endoscopy clinic
- Investigation with colonoscopy appears to have limited yield.
- Investigation with colonoscopy is not without significant risk
- Suggest that colonoscopy should not be used as a first line investigation for isolated abdominal pain.

References

- 1 Epidemiology of colonic symptoms and the irritable bowel syndrome. Gastroenterology 1991;101:927-934- Talley NJ et al
- 2 Who needs colonoscopy to identify colorectal cancer? Bowel symptoms do not add substantially to age or other medical history. B-A Adelstein, L Irwig et al Aliment Pharmacol Ther 2012 32:270-281
- 3: Most bowel cancer symptoms do not indicate colorectal cancer and polyps- a systematic review. Barabra-Ann Adelstein et al . BMC Gastroenterology 2011, 11:65
- 4: . The appropriateness of colonoscopy: a multicenter, international observational study. J.K.Harris, F.Froelich ... International journal for quality in healthcare vol 19, no3