

Acromegaly: Is there a need for colorectal cancer screening?

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1) Objective

Acromegaly is characterized by chronic hypersecretion of growth hormone (GH) with increased concentration of IGF-1. There have been controversial debates over the question whether elevated IGF-1 levels indicate high risk of developing colorectal neoplasm. There is no clear guideline indicating the need for colorectal cancer screening for acromegalics. We evaluated the colonoscopic findings in our series of patients to analyze the prevalence of risk. Should patients with acromegaly undergo screening for colorectal cancer?

2) Methods

Full-length colonoscopy was performed on 24 patients within one week after transsphenoidal surgery. The study includes 13 male and 11 female aged 27-62 years. We analyzed the colonoscopic findings - taking histological, hormonal and clinical data into account. Serum IGF-1 was compared between acromegalic patients with and without colorectal lesions.

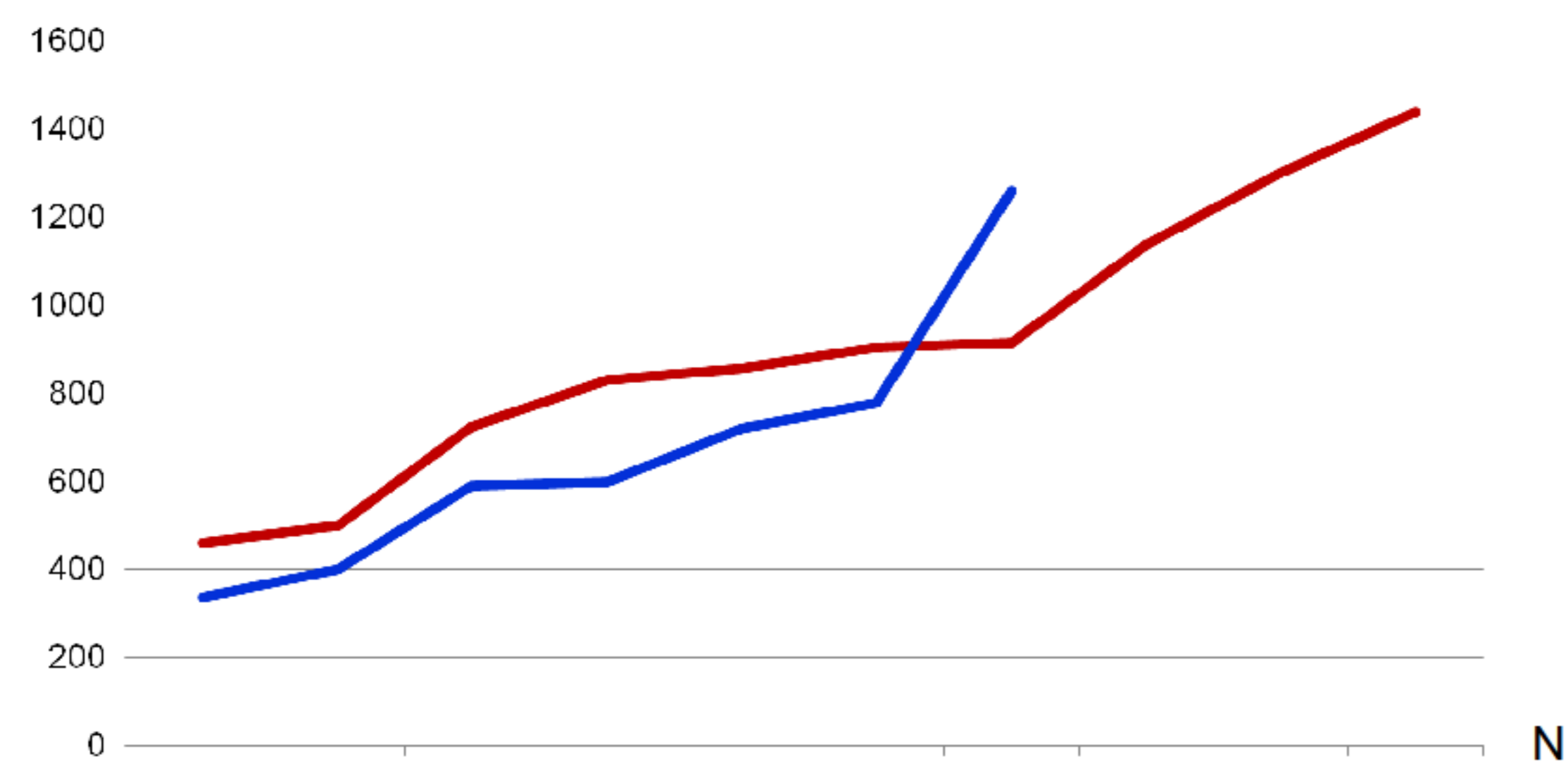
Control cohorts

	A	B
Mean age	62,9 years	44,1 years
Numers of patients	30	30
Including criteria	<ul style="list-style-type: none"> Successful full-length colonoscopy Asymptomatic / screening program 	<ul style="list-style-type: none"> Successful full-length colonoscopy Abdominal + bowel complaint
Excluding criteria	<ul style="list-style-type: none"> Positive family history Age > 75 y Previous colonic cancer or polypectomy 	<ul style="list-style-type: none"> Positive family history Age > 25 - < 55 y Previous colonic cancer or polypectomy

3) Results

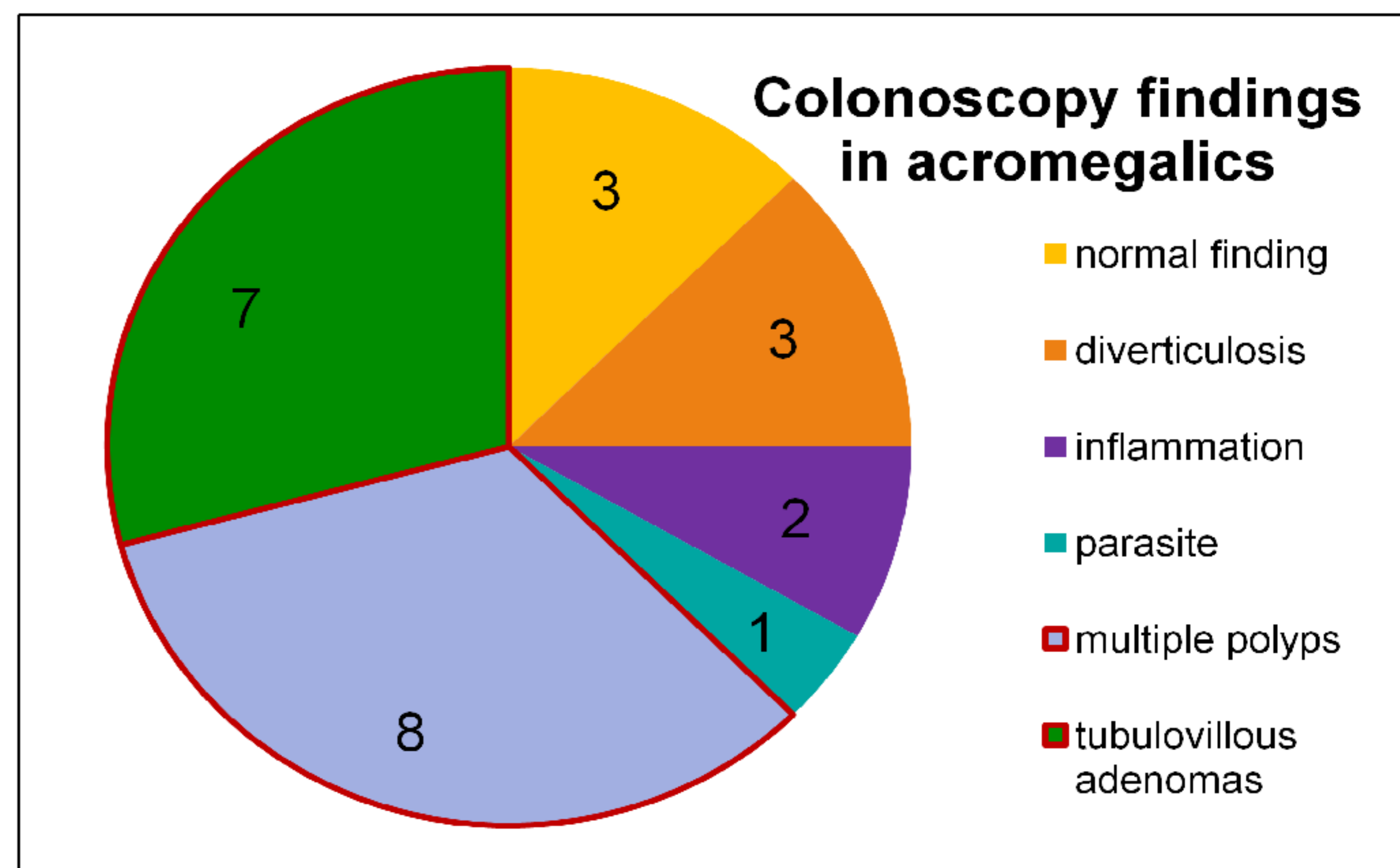
All of the patients with acromegaly were asymptomatic prior to colonoscopy. None of the patients had positive family history of colorectal cancer. 3 patients showed normal findings, 3 patients were diagnosed with diverticulosis, 2 patients showed inflammatory lesions, 1 patient showed parasite infestation. 8 patients were detected with multiple polyps. 7 patients showed adenomas with atypia. In this respect IGF-1 levels of disease were similar to those with no precancerous lesions (no statistical significance). Mean time between symptom onset and diagnosis was estimated as 10 years.

Hormonal aspect in acromegalics

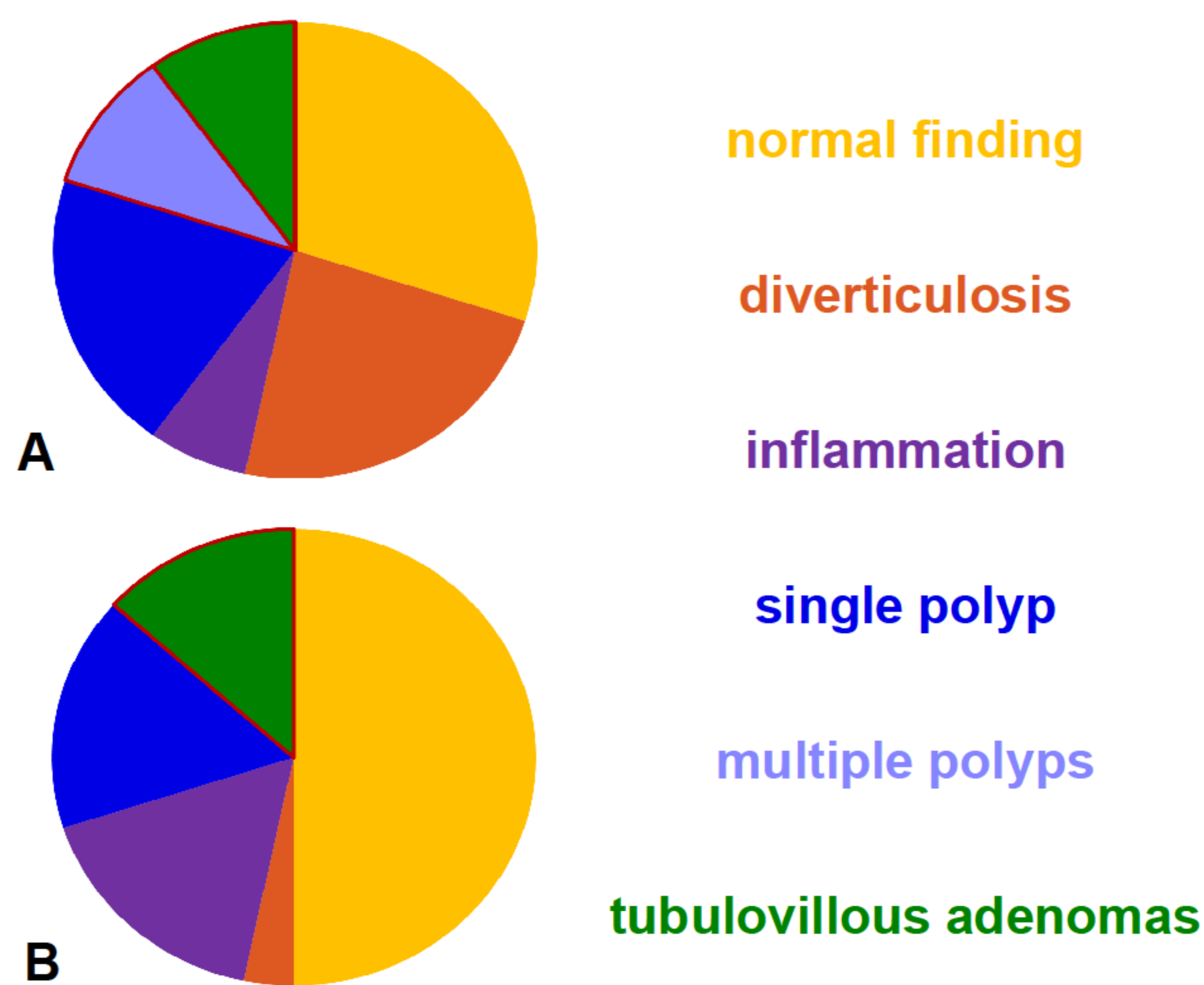


IGF-1 range (acrom. with polyps/adenoma): 460-1439 ng/ml
IGF-1 range (acrom. without polyps/adenoma): 338-1260 ng/ml

Results



Colonoscopy findings in controls A and B



4) Conclusion

Acromegalic patients are more likely of developing colonic adenoma and multiple polyps at young age. In our series we could detect a high prevalence of tubulovillous adenomas (7/24) and multiple hyperplastic polyps (8/24). Multiple polyps appear typical for acromegalics, control patients rather show single polyp. The prevalence of adenomas is 2,5 time higher than age related control group and 3,3 time higher than our asymptomatic control group with older patients. The results suggest the necessity for routine colorectal cancer screening in this group of patients.

