



FDG-PET detects all present cancers in a FAP cohort and changed clinical management

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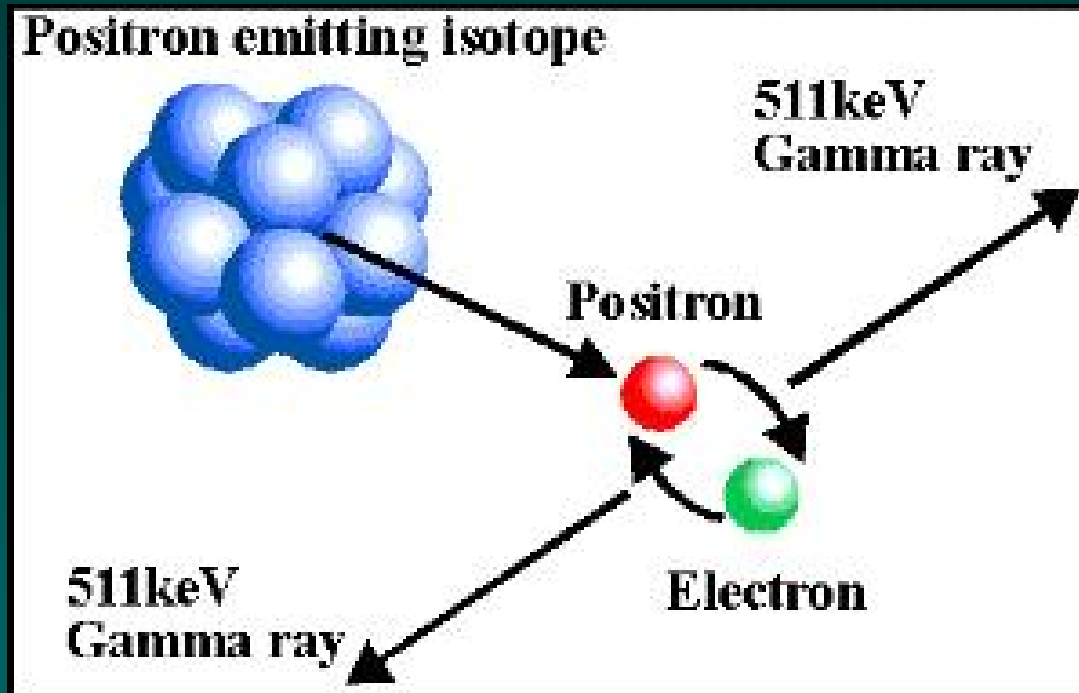
Background

- FAP: colonic and duodenal adenomas
- High risk on malignant transformation
- Identify high risk group
- Side-viewing upper gastrointestinal endoscopy (Spigelman)
- Limitations of endoscopy
- Timing of surgery



Background

[18]-Fluoro-deoxyglucose (FDG)





Background

FDG-PET signal

- Inflammatory Mass
- Neoplasm

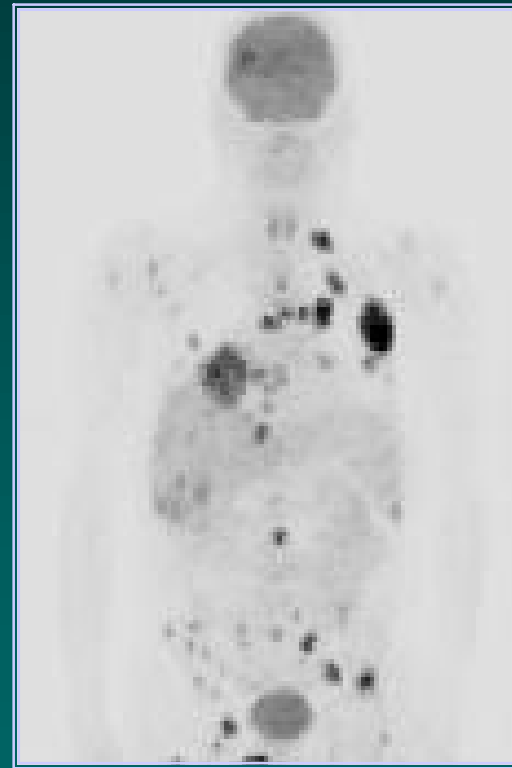


Background

(FDG) PET scan examples



Normal FDG-PET scan



Diffuse metastases



Study Aim

To establish the diagnostic yield of FDG-PET in FAP patients.

(specifically in patients with duodenal adenomas)



Materials and Methods

24 FAP patients underwent FDG-PET

- 14 males, 10 females
- Mean age 47 (SD 12)
- Spigelman Classification: 0-2, I-3, II-9, III-2, IV-8
- Colon Status: IPAA-3, ileorectal-9, ileostoma-9, colon in situ-2
- Mutation analysis: 17 positive
- Mean follow-up after FDG-PET : 2.8 years
- Deceased patients: 3



Results: FDG-PET positive

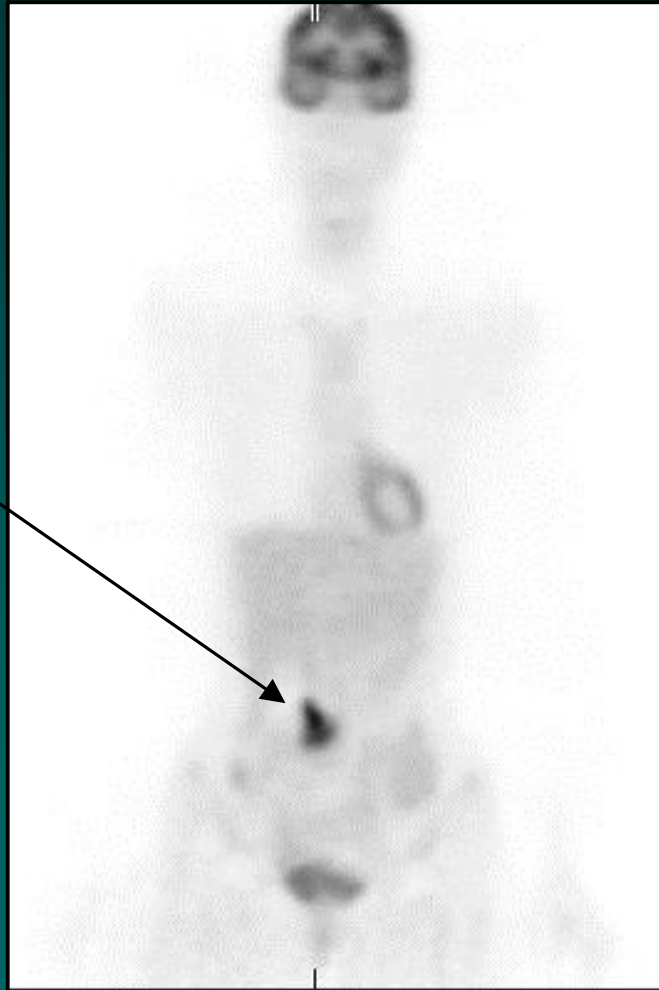
5 of 24 (20.8%) of patients were FDG-PET positive:

- two in the upper abdomen: duodenal amp. cancer (died)
- one in the left lung: sclerosing haemangioma
- one in the middle abdomen: metastases of previous pouch carcinoma (died)
- one multiple spots in the abdomen (IRA):
no abnormality on CT scan, small bowel or upper and lower GI endoscopy; no histology



FDG-PET positive

Increased FDG uptake in the upper abdomen





Results: FDG-PET negative

19 of 24 (79.2%) of patients were FDG-PET negative:

- No malignancies during follow-up
- Spigelman IV patients were all negative
- In 3 patients subsequent negative FDG-PET at follow-up
- Two duodenal resections because of repeated high grade dysplasia in adenomas (Spig IV): no cancer
- All patients had rectal or pouch adenomas



Conclusions

FDG-PET detects all carcinomas in this FAP cohort.

➤ **FDG-PET positive: exclude cancer**

None of the FDG-PET negative patients developed cancer.

➤ **FDG-PET negative: more expectant approach**