Can FDG PET CT Effectively Detect Sinister Gastrointestinal Tract Pathology?

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OBJECTIVE

- Physiological uptake is seen in the gastrointestinal tract in FDG PET CT.
- Abnormal uptake can occur in benign as well as malignant conditions.
- Our study aims to find the frequency of biopsy proven malignancies after FDG PET CT suggested further endoscopy and biopsy based on abnormal gut uptake at our center.

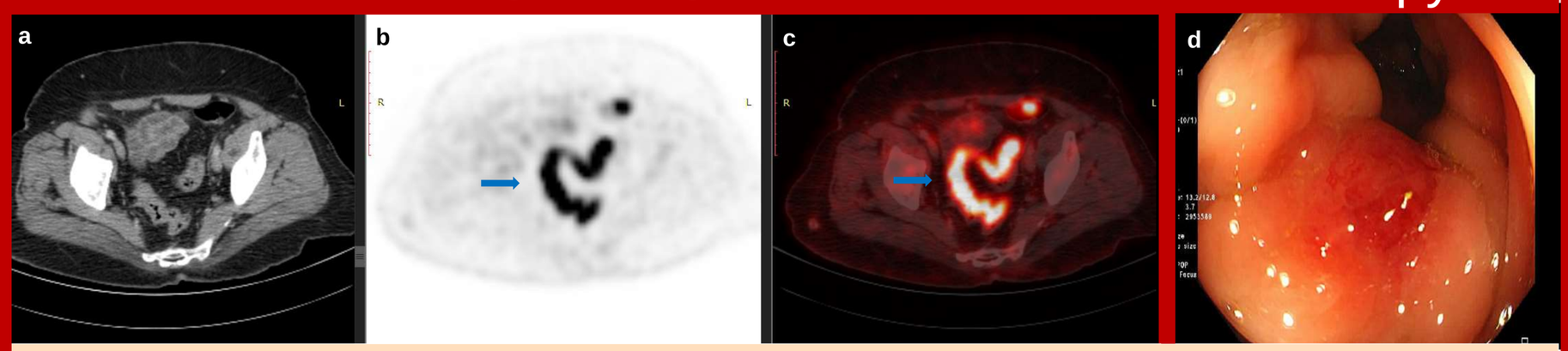
METHODS

- Retrospective data of last 15 years retrieved from HIS.
- Total 339 patients found in whom endoscopy suggested on FDG PET CT.
- Total 50 patients selected randomly whose complete workup was available.

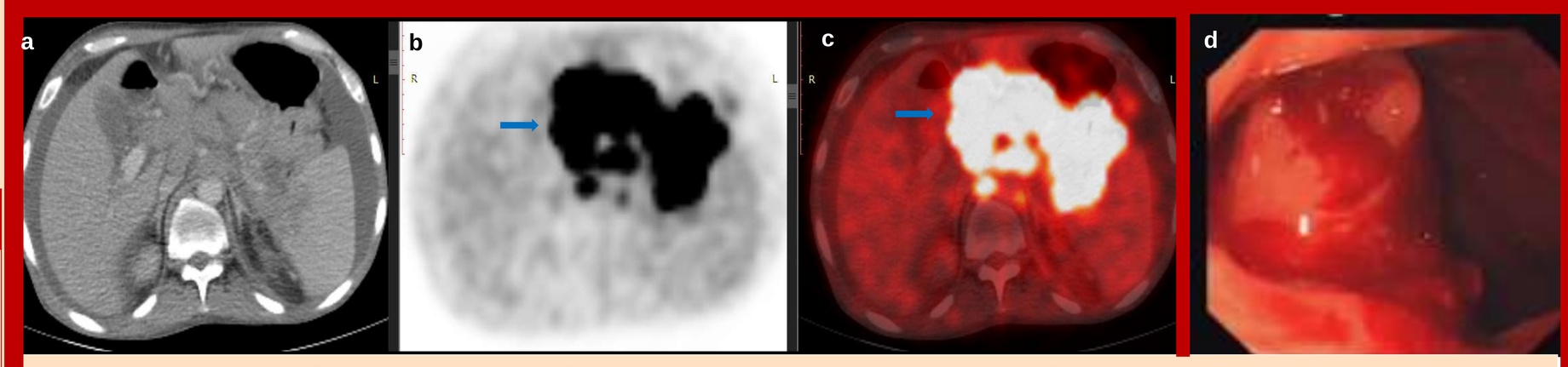
RESULTS

Total number of cases	50
Number of malignant cases	11
Number of benign cases	39
Number of recurrent malignancies	4
Number of metastatic cases	5
Number of second primary malignancies	2
No of colitis cases	4
No of proctitis cases	1
No of gastritis cases	9
Non specific inflammation	25
Treatment changed on endoscopy+biospy	11
Additional chemotherapy	6
Surgery	2
Treatment unchanged	1
Lost to follow up	1

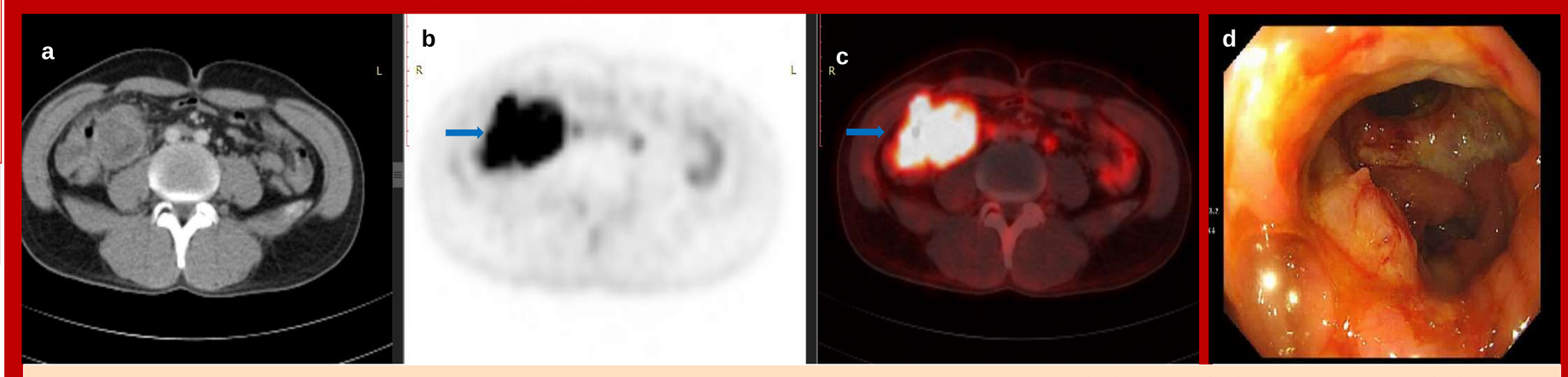
FDG PET CT | Endoscopy



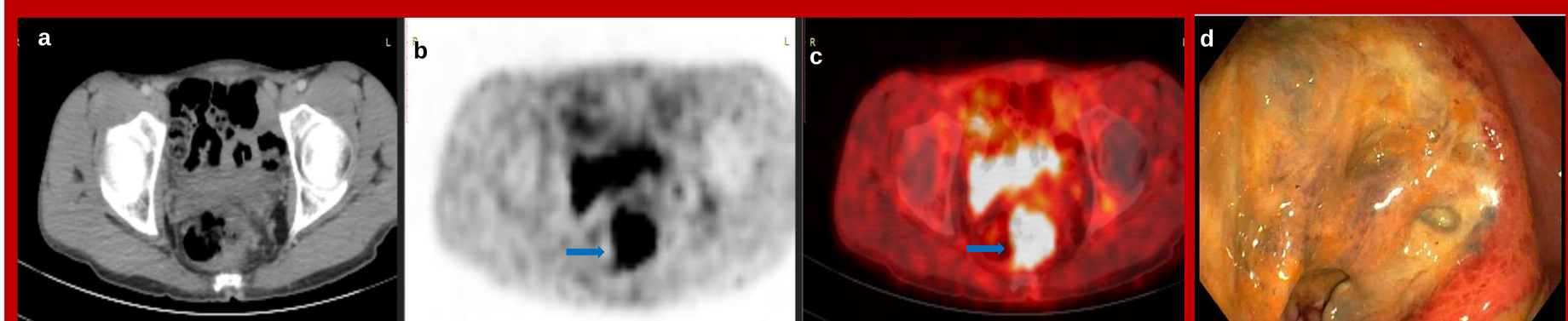
65,F.Pancreatic mucinous adenocarcinoma. CT axial (a) PET (b) and fused (c).PET CT showed uptake in the sigmoid colon. Colonoscopy (d) showed mucosal exuberance in sigmoid colon. Histopathology confirmed sigmoid colon adenoCA.



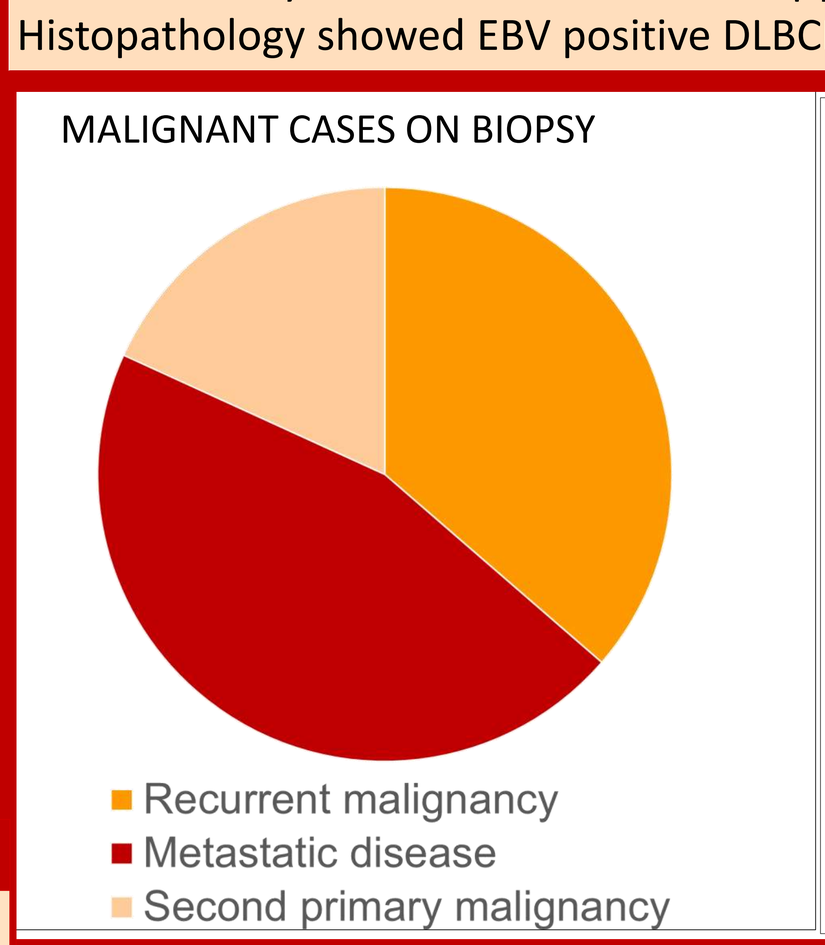
42,M.DLBCL on left hypochondrial mass. CT axial (a) PET (b) and fused (c). FDG PET CT showed avidity in gastric fundus. Endoscopy (d)showed deformed fundus compressed by external structures. Histopathology confirmed metastatic DLBCL in fundus.

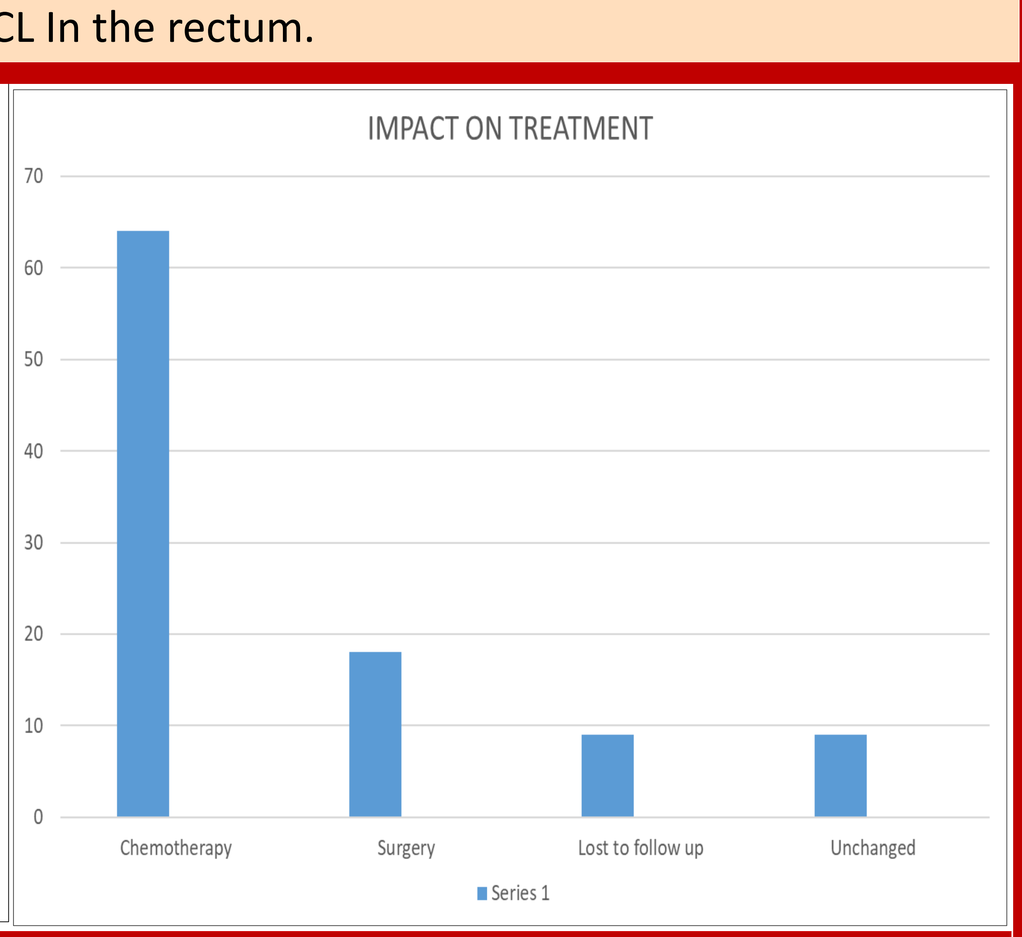


41M, diagnosed with DLBCL on ascending colon biopsy. CT axial (a) PET (b) and fused (c) FDG PET CT showed uptake in cecum. Endoscopy (d) showed ulcer is sigmoid colon/rectum. Histopathology confirmed recurrent DLBCL.



26,M. EBV positive lymphoma on incisura biopsy. CT axial (a) PET (b) and fused (c) FDG PET CT showed avidity in the rectum. Colonoscopy (d) showed stenosing tumor close to anal verge. Histopathology showed EBV positive DLBCL In the rectum.





CONCLUSION

Even though the sample size is limited, our study showed that FDG PET CT can reveal additional benign and malignant lesions of the gastrointestinal tract in workup of some other known primary malignancies.

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