“ROLE OF F-18 FDG PET-CT IN MALT-LYMPHOMA: A SINGLE CENTER EXPERIENCE”

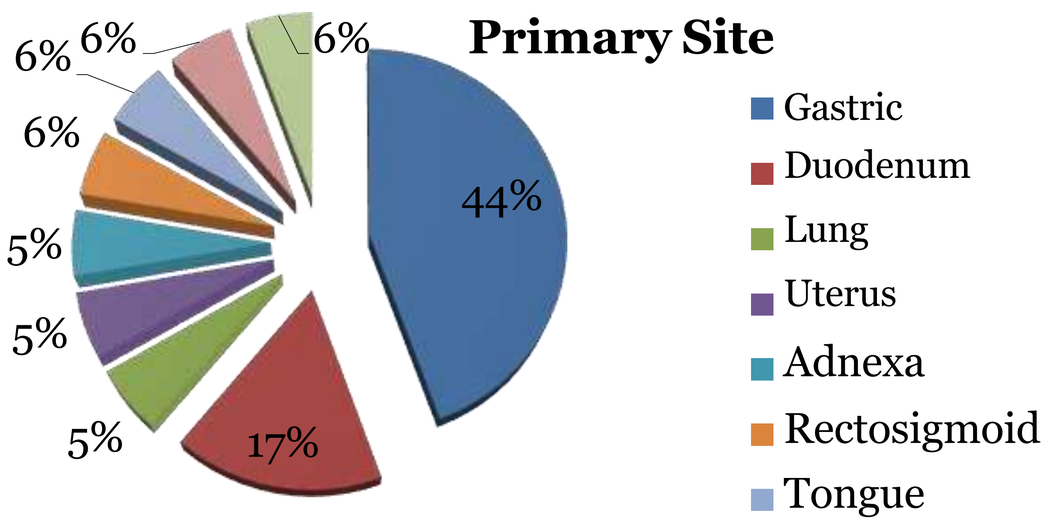
Zeeshan Sikandar[1], Adnan Liaqut[1], Hajira Ilyas[1], Humayun Bashir[2], Aamna Hassan[1].
[1]Shaukat Khanum Memorial Cancer Hospital and Research Centre, Nuclear Medicine Department, Pakistan.
[2]East Kent Hospitals University NHS Foundation Trust, United Kingdom.

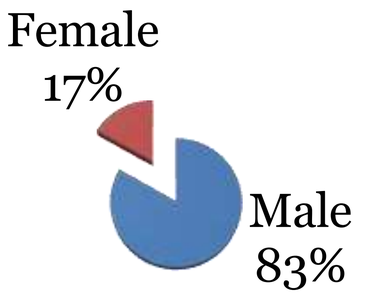
Objective:

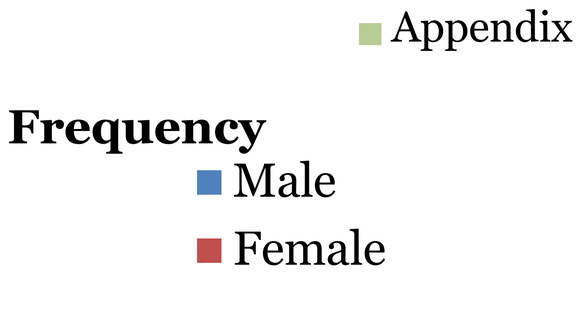
Mucosa-associated lymphoid tissue (MALT) lymphoma can potentially arise from any mucosal site, with gastric mucosa as the most common primary site. Except for a few rare cases, MALT lymphoma is rarely an aggressive disease having good prognosis. The role of FDG PET-scan in MALT lymphoma patients is debatable. Keeping in view this scenario, the main objective of our study is to analyze the data of MALT lymphoma affected patients whose F^{18}FDG PET-CT scans acquired at our center.

Material and Methods:

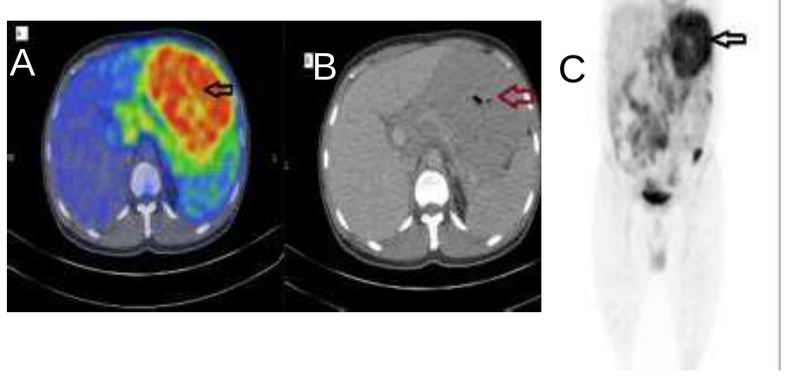
In this study 18 histopathologically confirmed patients were retrospectively evaluated who had F^{18}FDG PET-CT scan from 1st Jan, 2009 to 18th June, 2025.
15 patients were males and 3 were females with mean age of 52.5 yrs. PET-CT scans were evaluated both visually and semi-quantitatively by measuring standardized uptake value (SUV_{max}).







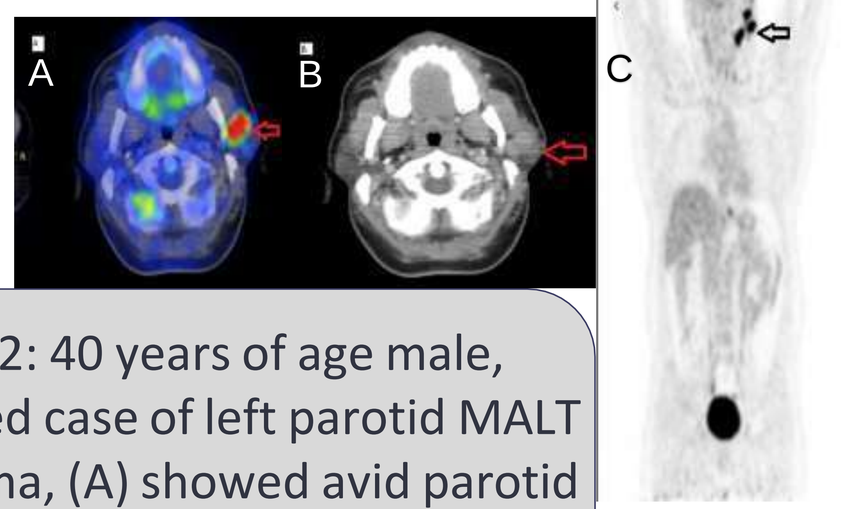
Case 1: 37 years of age male, diagnosed case of gastric MALT lymphoma, (A) showed avid gastric mass, (B) CT image, (C) PET only image, showing multifocal uptake.



Results:

Out of eighteen patients, largest number were of gastrointestinal tumors (71%) while remaining (29%) were of different origin as shown in diagram.
Out of 18, 8 patients had both regional and distant nodal involvement, among which 3 had gastric origin disease with nodal disease on both sides of diaphragm *(Ann Arbor stage IV).*

Out of 18 patients, interim scan was done only in 9 (50.2%) patients, utilizing the Deauville criteria, 5 patients had complete metabolic response (CMR) on interim scan, while 4 had partial response (PR) on interim scan.
Those who had CMR on interim scan, 3 had CMR on follow up scans, 1 had CMR then relapse and eventually died while follow up scan was not done in 1 patient.
Those who had partial response on interim scan, 2 had CMR on follow up scan. 1 had partial response then relapse after 2 years while 1 had progressive disease with second primary of gastric adenocarcinoma.



Case 2: 40 years of age male, diagnosed case of left parotid MALT lymphoma, (A) showed avid parotid nodes, (B) CT image, (C) PET only image, showing multifocal uptake in left parotid region.

Conclusion:

Our limited institutional experience with F^{18}-FDG PET-CT in MALT lymphoma is in keeping with the established usefulness of F^{18}-FDG PET-CT in NHL. Further large volume, prospective multicenter studies are required to validate the role.

References:
Albano D, Durmo R, Treglia G, Giubbini R, Bertagna F. ^{18}F-FDG PET/CT or PET Role in MALT Lymphoma: An Open Issue not Yet Solved-A Critical Review. Clin Lymphoma Myeloma Leuk. 2020 Mar;20(3):137-146. doi: 10.1016/j.clml.2019.10.006. Epub 2019 Oct 19. PMID: 32029397.
Albano D, Bertoli M, Ferro P, Fallanca F, Gianolli L, Picchio M, Giubbini R, Bertagna F. 18F-FDG PET/CT in gastric MALT lymphoma: a bicentric
experience. Eur J Nucl Med Mol Imaging. 2017 Apr;44(4):589-597. doi: 10.1007/s00259-016-3518-y. Epub 2016 Sep 12. PMID: 27619357.

SHAUKAT KHANUM MEMORIAL
CANCER HOSPITAL & RESEARCH CENTRE
7-A Block R III, Johar Town, Lahore, Pakistan
www.shaukatkhanum.org.pk