**ABSTRACT**

Background: The biological and pattern of spread in lobular breast cancer has previously been understood in the context of traditional imaging methods. 18F-FDG PET is an advantageous imaging modality for metastatic disease, but imaging of lobular tumors is more challenging due to lower expression of the hexokinase-1, a key enzyme in glucose metabolism. We evaluated the diagnostic utility of PET imaging in the diagnosis of lobular breast cancers.

Methods: We retrospectively reviewed patients with lobular breast cancer who underwent FDG-PET imaging at our institution. Those with known lobular breast cancer were included in the analysis. We evaluated PET imaging results and correlated them with histopathological findings.

Results: Of the 20 patients included in the analysis, 18 had lobular breast cancer, and 2 had a combination of lobular and ductal breast cancer. The median age of the patients was 56 years (range: 34-79). The PET imaging results showed increased uptake in 14 out of 20 patients (70%). The correlation with histopathological findings was significant (p < 0.05). The diagnostic accuracy of PET imaging was 85%.

**OBJECTIVES**

- To determine the diagnostic utility of PET imaging in lobular breast cancer.
- To identify potential pitfalls in PET imaging.

**RESULTS**

- Increased uptake on PET imaging in 14 out of 20 patients.
- Histopathological correlation with increased PET uptake.
- Diagnostic accuracy of 85%.

**CONCLUSIONS**

- PET imaging is a valuable tool in the diagnosis of lobular breast cancer.
- Further studies are needed to improve the diagnostic accuracy.

**REFERENCES**