

## Introduction

Features that are visible on brain tissue gross examination of people with MS included multiple highly delineated demyelinating plaques in the CNS white matter (WM), with an increased tendency of affection for the optic nerves and WM tracts of the peri-ventricular regions.

## Results

**Table :** Comparing 3D FLAIR, FLAIR, T2 according to total lesions in RMS cases

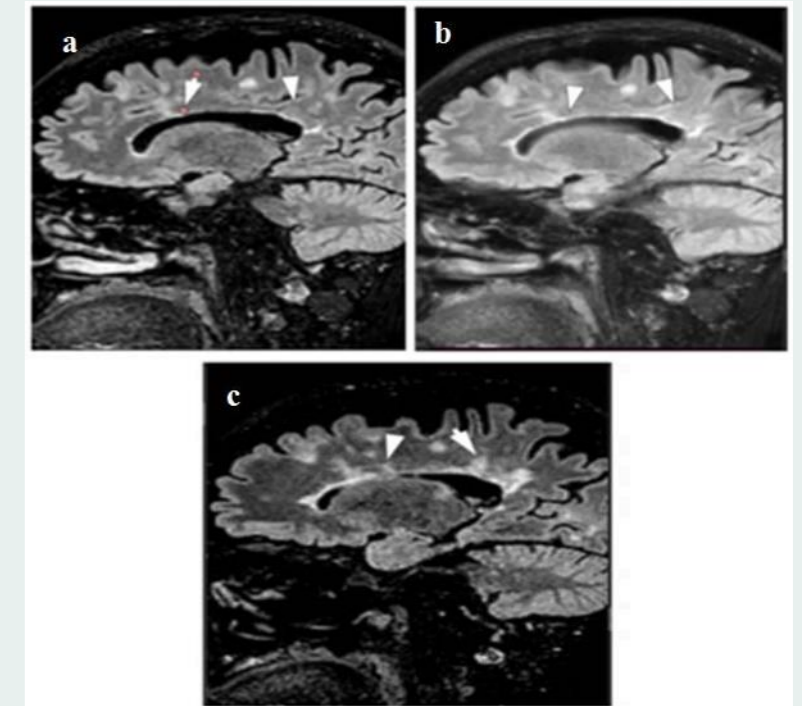
Total lesions	3D FLAIR	FLAIR	T2	P value for Friedman test
<b>Minimum</b>	7.0	2.0	2.0	
<b>Maximum</b>	44.0	31.0	21.0	
<b>Mean</b>	26.29	13.21	11.71	
<b>Standard deviation</b>	8.85	5.42	4.33	
<b>Median</b>	26.50	13.00	12.00	
<b>Inter quartile range</b>	22.0-31.0	10.0-15.50	10.0-14.0	
<b>Sum</b>	736.0	370.0	328.0	
<b>P<sub>0</sub> (pairwise comparison)</b>		<0.001*	<0.001*	<0.001*

(n=28)

p: value for Friedman test for overall comparison of all 3 groups

p<sub>0</sub>: p value for pairwise comparison comparing between 3D FLAIR with (T2 and FLAIR)

\*Statistically significant at  $p \leq 0.05$



37 years old female patient diagnosed as MS since 10 years for follow up.

**Figure:** Sagittal brain images T2WI (a), FLAIR (B) the boundaries of the periventricular demyelinating lesions are not clearly identified while in 3D FLAIR (c) were detected better.

## Conclusion

- 1.Adding the 3D-FLAIR sequence beside the conventional MR sequences as a routine modality in patients with suspected MS due to its higher sensitivity in detecting the MS lesions especially in deep WM and infratentorial regions.
- 2.Further study to confirm if a single stand-alone 3D FLAIR sequence could be considered appropriate for MS monitoring.

## Aim of the Work

The aim of this study was to evaluate the diagnostic value of the 3D- FLAIR sequence in MS. Also, the correlation between lesion load on 3D- FLAIR and EDSS will be performed.

Our study will include 32 patients with MS.

## Subjects and Methods

MS lesions appear everywhere in the central nervous system wherever myelin is present, but lesions surrounding the ventricles and corpus callosum are particularly suspicious. Subcortical and infratentorial areas are also common areas of involvement.

This study includes 32 patients with MS. diagnosed clinically according to McDonald criteria modified in 2017

### **Inclusion criteria:**

Definite diagnosis of MS according to 2017 McDonald criteria.

### **Exclusion Criteria:**

Any other immunological, malignant, or vascular CNS diseases in the present and/or past medical history.