

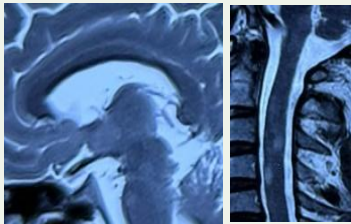
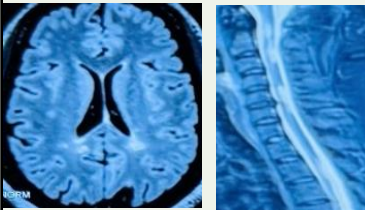
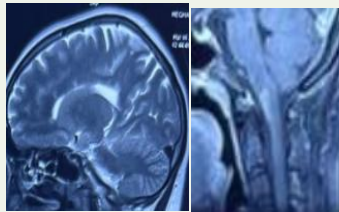
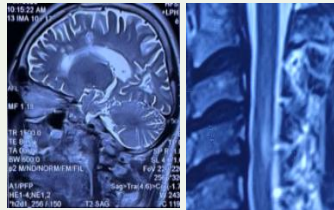


# Kappa Free Light Chains : Enhancing Multiple Sclerosis Diagnosis Beyond Oligoclonal Bands

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## INTRODUCTION

- ☐ With the advent of newer diagnostic methods like automated nephelometry and automated turbidometry, Kappa Free Light Chains assays has gained popularity in diagnosing demyelinating diseases.
- ☐ Studies on the diagnostic value of KFLC in MS have demonstrated that it is a valid, stable against most pre-analytic influencing factors, easier and rater-independent alternative to OCBs detection.
- ☐ There is intrathecal KFLC synthesis like OCBs in CIS and MS patients and the sensitivity of KFLC is even better than OCBs.
- ☐ Here, we present a case series focussing on the diagnostic relevance of KFLC in MS.

PATIENT	1	2	3	4
Age	37 years /Male	43 years/F	28 years/F	50 y/M
Presentation	Partial cord syndrome-3 years, Bladder symptoms - 2.5years, Cerebellar syndrome- 8 months.	Partial cord syndromes in 2014 and 2020, Optic Neuritis – 2023	2024- 2 attacks, 2025 – 1 attack – all partial cord syndromes	Cerebellar and Partial cord syndrome – 2 years
Course	Progressive	Relapsing remitting	Relapsing remitting	Progressive
OCBs	Negative	Negative	Negative	Negative
KFLC index	8.15	6.81	21	34.70
Imaging				
OCT/VEP	WNL/WNL	WNL/WNL	WNL/WNL	Abnormal/Abnormal
DIS/DIT	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes
Dilemma	OCBs negative with initial imaging not fulfilling MS criteria.	OCBs - negative All attacks myelitis. Only 1 T1 black hole on MRI Brain. Calloseseptal sparing on MRI Brain.	OCBs negative All attacks myelitis.	The initial imaging didn't fulfill MS criteria.

## RESULTS & DISCUSSION

- ❑ All the patients evaluated in this series had negative CSF - OCBs while all of them had positive KFLCs.
- ❑ KFLCs solved the dilemma of DIT in patients with negative OCBs and clinical and imaging criteria not fulfilling DIT.
- ❑ Thus, it helped us in diagnosing MS where OCBs could not.
- ❑ This series shows the higher sensitivity of KFLC than OCBs.
- ❑ Moreover, OCBs provide only a qualitative result, not quantitative whereas KFLCs provide quantitative results.
- ❑ Studies have shown that it also predicts disease activity, allows for risk stratification and helps in predicting disability accrual.
- ❑ It even predicts Radiological activity, with better sensitivity and lower specificity than OCBs.

## CONCLUSION

- ❑ OCBs are not positive in all MS patients especially the Asian population.
- ❑ KFLCs help in establishing DIT like OCBs and is a good alternative.
- ❑ As there is no single test for MS and diagnosis of MS relies on the integration of clinical, imaging, and laboratory findings.
- ❑ So, the use of KFLCs with OCBs perhaps will increase the sensitivity as well as the specificity.

### REFERENCES

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