# Ophthalmologist and Radiologist : Independent yet Interdependent

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## *Case History And Examination*

- 35 year old female
- Diminution of vision in her left eye since 7 days
- No history of pain ,redness. eye trauma
- A diagnosed case of breast cancer
- Had undergone modified radical mastectomy 1 year back.

| | RIGHT EYE (OD) | LEFT EYE (OS) |
|---|---|---|
| Visual acuity | 6/24 improving to 6/9 with pin hole | 2/60 no improvement with pin hole |
| Color vision | Normal | Normal |

## *Clinical examination, diagnosis and treatment*

Anterior segment - within normal limits in both eyes except for the presence of a left sided relative afferent pupillary defect

*Posterior segment* - within normal limits in both eyes

*MRI* - normal ( as reported by the radiologist)

*Provisional diagnosis* - idiopathic retrobulbar neuritis

*Treatment* - iv methyl prednisolone followed by oral methyl prednisolone

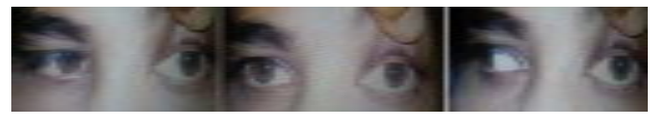
MRI - midaxial

After 30 days of lost follow up - chief complaints of



## *External examination*

| | OD | OS |
|---|---|---|
| Visual acuity | 6/60 no improvement with pin hole | No perception of light or projection of rays |
| Eyeball as a whole | Normal in position | proptosed |
| Ocular motility | Full in all direction | Restricted in all direction(diagram) |



*Restriction of ocular movement in left eye*

- Axial
- No pulsations were observed
- No change with position
- Not associated with periorbital change
- Palpation -
- Resistance was felt on retropulsion of globe
- Orbital rim - no abnormality
- Paranasal sinus - non tender
- Auscultation - no bruit
- Naffziger's test - positive

***Proptosis evaluation***

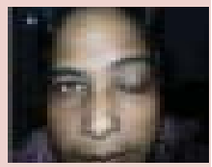
***Resistance on retropulsion***

***Naffziger's test - positive***

presence of a left sided relative afferent pupillary defect

Posterior segment and MRI

***Anterior segment***

| | OD | OS |
|---|---|---|
| Eyelids | Flat  | •Severe ptosis(diagram)<br>•obliterated palpebral fissure<br>•Margin reflex distance - 4 mm,<br>•absence of lid crease<br>•poor levator function |

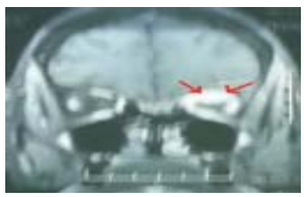
presence of a left sided relative afferent pupillary defect

***Posterior segment*** - within normal limits in both eyes

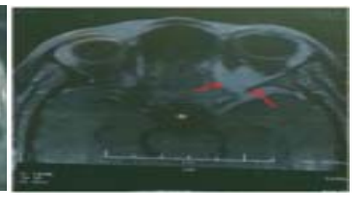
***MRI*** - mass which is

- Both intraconal and extraconal .
- Extending from the apex of the orbit to middle of the intraconal space .
- Not affecting the adjacent structures.

*Referral to oncologist* - USG detected liver secondaries.



***MRI - coronal view(arrow pointing the mass)***



***MRI - midaxial (arrow pointing the mass***

***Ultimate diagnosis***

carcinoma BREAST metastasis to orbit

Conclusion

Best lessons come from worst mistakes!!!!!!

- Review of the both MRI revealed that both were taken with a slice thickness of 5mm.

***Conclusion:***

1. Increased slice thickness might be the cause of missing a small metastasis in the first MRI. This case taught us the importance of specifying the details while ordering an MRI to radiologist.
2. Not just the patient name and diagnosis --slice thickness, contrast enhancement , imaging plane and tissue window ,modifications ,simultaneous brain imaging if required should be specified.

***Discussion***

- Similar studies have been reported which have shown metastatic breast cancer misdiagnosed as a case of retrobulbar neuritis and later on the patient presenting with a very low visual acuity along with other manifestations in a very short period.(1)
- Diplopia (48%), pain (42%), and visual loss (30%) are usually the commonest symptoms .
- Proptosis (63%), strabismus (62%), and visual loss (41%) are the most frequent clinical signs

If would have seen the iceberg a few seconds earlier then perhaps…..

***References***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