AN UNUSUAL CASE OF OPHTHALMOPLEGIA.

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CASE

A 40 year old female, homemaker, presented with complaints of :

Giddiness since 2 days.

Double vision since 1 day.

Slurring of speech since 1 day.

Difficulty in swallowing and **regurgitation of food** since 1 day.

Tingling sensations in all the four limbs since 1 day.

No history of:

- Loss of consciousness, seizure or syncope.
- Bowel or bladder incontinence.
- Muscle weakness.
- Sensory loss.
- Fever, loose stools or vomiting.
- Snake or insect bite.
- Similar complaints in the past or any significant medical illness.
- Co-morbidities, substance abuse or sleep disturbances.

General Examination

- Patient was conscious and oriented to time, place and person.
- **Pulse rate** - 90 beats per minute, regular rhythm.
- **BP** - 130/90 mmHg, right arm supine position. No postural hypotension.
- **RR** - 14 per minute.
- **Spo2** – 98% on room air.
- No pallor, icterus, cyanosis, clubbing, lymphadenopathy, edema.

Neurological Examination

- **Cranial nerves:**

1. Bilateral complete **ophthalmoplegia** with bilateral ptosis and bilateral dilated pupils suggestive of involvement of the **3rd, 4th, 6th** nerve.
2. Bilateral gag reflex was absent suggestive of **9th and 10th** nerves.

- **Sensory examination** was normal
- **Motor examination** showed no wasting, normal tone, power was normal in all the four limbs, **deep tendon reflexes were absent** in all the four limbs and **bilateral plantar reflexes were mute**.
- **Cerebellar signs** were absent.

Systemic Examination

- The cardiovascular, respiratory and gastrointestinal systems examination was normal.

Differential Diagnosis based on History and Clinical Examination

- **Miller Fischer syndrome/ Atypical Guillain Barre syndrome.**
- **Occult snake bite.**
- **Tick Bite.**
- **Botulism.**
- **Multiple Sclerosis.**
- **Myasthenia Gravis.**

Laboratory Investigations

CBC	URINE R/M
HB- 13.80 TLC- 9200 PLT- 266,000	Proteins- Trace Glucose – Nil Pus cells 1-2
SERUM ELECTROLYES- WNL	SERUM PROTEINS- WNL
RFT- WNL	PROCAL- 0.04
LFT-WNL	TFT - WNL
LIPID PROFILE- WNL	RA Factor - Negative
HHH- NON REACTIVE	UPCR- PROTEINS 247 PCR 0.54
Sr. HOMOCYSTEINE- 15.40	CPK NAC- 64

Radiological and Other Investigations

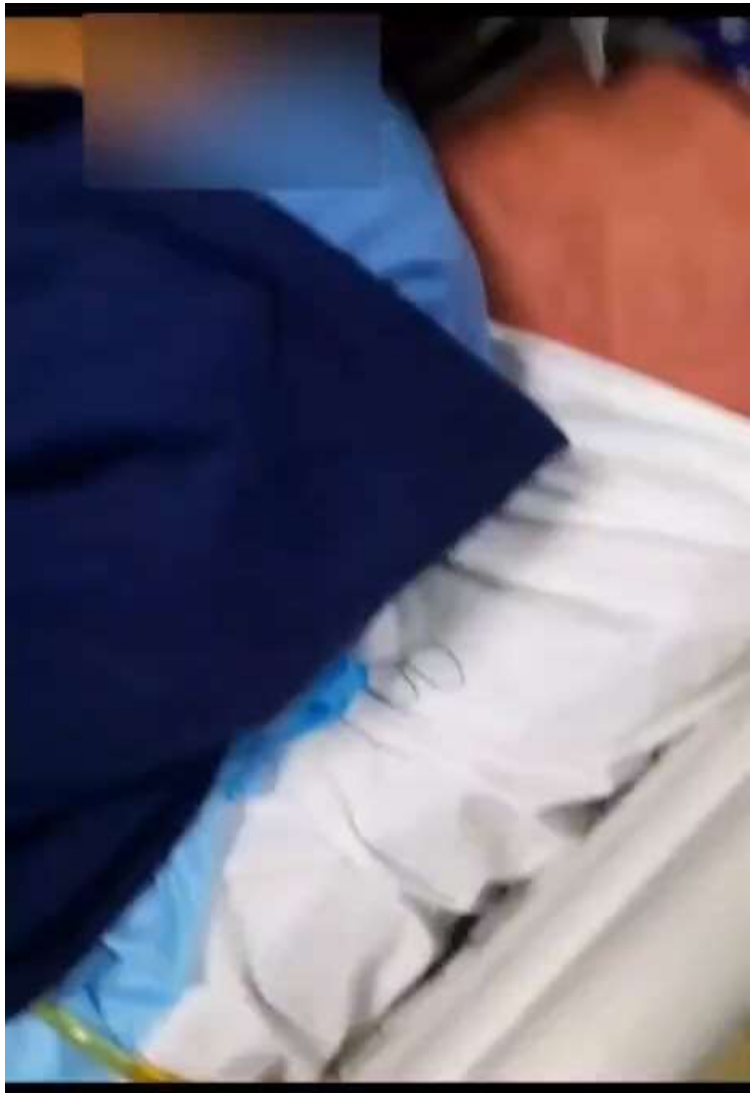
- **MRI BRAIN(P/C), Angiography, Venography** - Normal.
- **MRI Whole Spine Screening** - Normal.
- **NCV** - Normal Study.
- **EMG** - Normal.
- **2D Echo** - Normal.
- **Chest X ray** – No abnormality.
- **ECG** – Normal Sinus Rhythm.
- **Fundus** examination was normal.

CSF STUDIES	
R/M- CLEAR	CSF C/S – NO GROWTH
PROTEINS -63.70 mg/dL	CSF MALIGNANT CYTO-NEGATIVE
GLUCOSE- 74 mg/dL	
RBC- OCCASIONAL	
TLC – 2	
LYMPHOCYTES- 100%	
ADA- 0.87	

- With strong clinical suspicion of atypical GBS, patient was started on **Intravenous Immunoglobulin** (2 gm/kg) on day 2 to be given over 5 days in divided doses.
- In the meantime **Autoimmune** workup and serum panel for **Ganglioside IgM Antibody** was sent.

Further progression of the disease

- There was no significant improvement in the condition of the patient with IVIG.
- On the 3rd day ptosis and difficulty in speech worsened.
- Serum panel for **Ganglioside IgM Antibody** was negative.
- **CSF viral panel** was also negative.
- A **repeat NCV** was also negative.
- **ANA by IF** was **weak Positive (1:80) with speckled pattern.**
- Hence, the patient was started on **Methylprednisolone** (1gm/day) pulse therapy and **ANA blot** was sent.

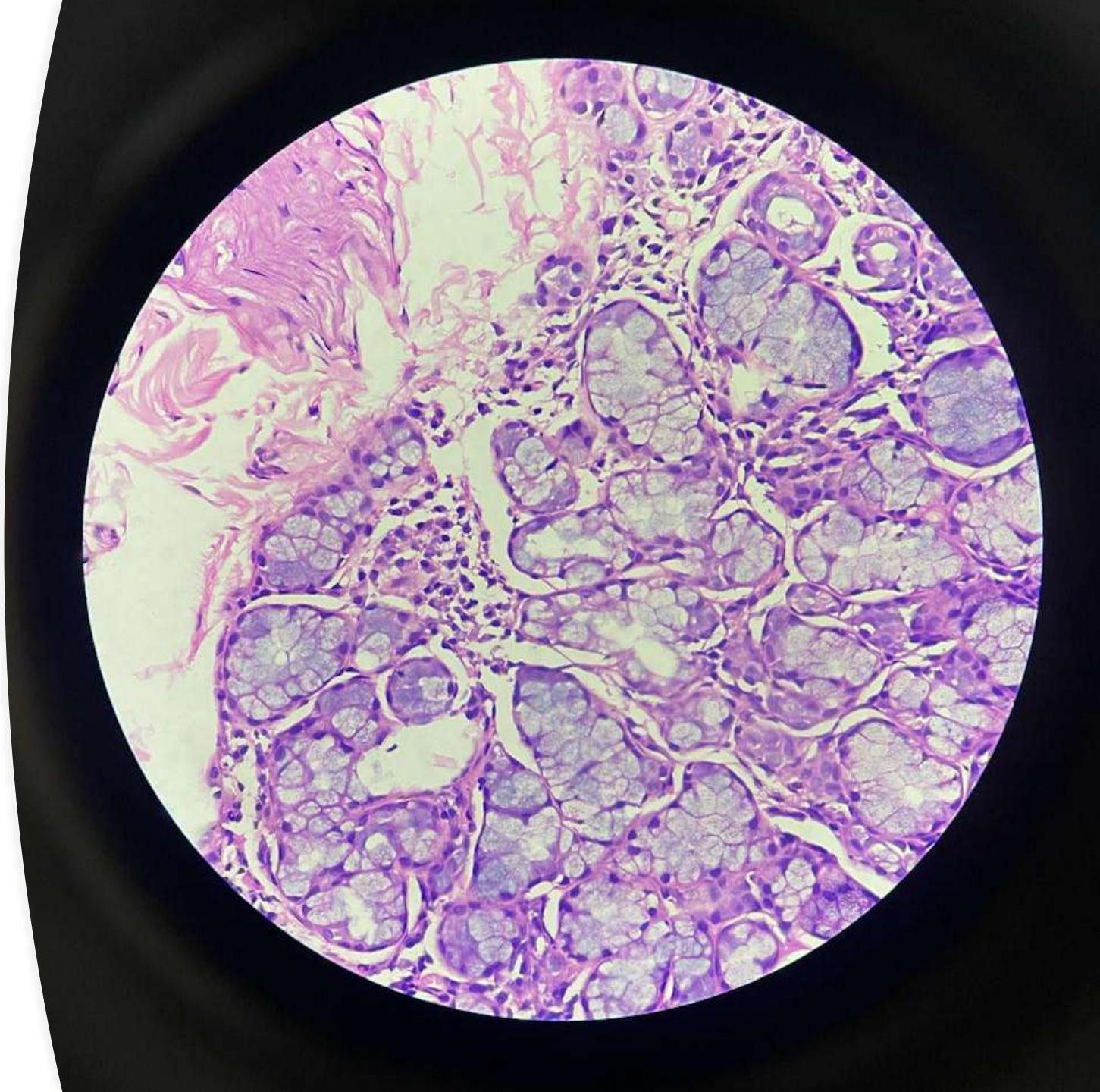


Further Investigations

- **ANA Blot**: **Ro 52 positive** and **AMA M2 weak positive.**
- **Schirmer's Test** was negative
- To confirm the diagnosis a punch biopsy from the lower lip mucosa was sent.
- Patient was stabilized by the pulse therapy and ptosis started to improve.

Histopathology Report of Lower Lip Mucosa

- The salivary gland showed mild focal ductal dilatation with mild to moderate lymphocytic infiltrate in the periductal region which was suggestive of **Chronic Sialadenitis favouring Sjogren's Syndrome.**



DIAGNOSTIC CRITERIA

The ACR/EULAR Classification Criteria for Primary Sjoegren's Syndrome

Item	Weight/score
Labial salivary gland with focal lymphocytic sialadenitis and focus score of ≥ 1 foci/4mm^2	3
Anti-SS-A/Ro positive	3
Ocular Staining Score ≥ 5 (or van Bijsterveld score ≥ 4) in at least one eye	1
Schirmer's test ≤ 5 mm/5 minutes in at least one eye	1
Unstimulated whole saliva flow rate ≤ 0.1 ml/minute	1

A score ≥ 4 classifies a patient who meets the **inclusion criteria:**

- ocular and/or oral dryness or suspicion of SjS according to EULAR SjS Disease Activity Index (ESSDAI)

and does not have any of the **exclusion criteria:**

- history of head and neck radiation, active HCV infection, AIDS, sarcoidosis, amyloidosis, graft-versus-host disease, IgG4-related disease.

Final Diagnosis

- In view of the clinical findings and investigations, a final diagnosis of **Primary Sjogren's Syndrome with Multiple Cranial Nerve involvement** was made.

Treatment

- INJ METHYLPREDNISOLONE 1GM/DAY(500-1000 mg/m^2) FOR 3 DAYS.
- TAB PREDNISOLONE 1MG/KG OD FOR 7 DAYS WHICH WAS THEN TAPERED OFF.
- TAB HYDROXYCHLOROQUINE 200MG HS FOR 5 DAYS.
- INJ CYCLOPHOSPHAMIDE 50MG/KG (6 CYCLES) TWICE WEEKLY.

POST TREATMENT

DISCUSSION

- **Primary Sjogren syndrome** is a systemic autoimmune disorder most commonly presenting with **sicca** symptoms and frequently occurs in conjunction with other autoimmune disorders including rheumatoid arthritis (RA) and systemic lupus erythematosus (SLE). In this setting, it is referred as secondary **Sjogren or Sjogren-overlap syndrome**.
- Nervous system involvement can be observed in up to **20%** of Sjogren's Syndrome patients affecting **both central and peripheral** nervous systems.
- **Sensory ataxic neuronopathy** and painful **small fibers neuropathy** are the two most typical forms of SS-associated neuropathies.
- Sensory ataxic neuronopathy is related to a **dorsal root ganglionitis** characterized by T-cell infiltration and loss of neuronal cells of the dorsal root ganglia.

DISCUSSION

- From a clinical point of view, patients **display loss of kinesthesia and proprioception leading to sensory ataxia, difficulty with fine motor movements, unsteady gait and reduced or absent reflexes.**
- Additional PNS disorders observed in SS patients include **sensorimotor polyneuropathy, autonomic neuropathy, mononeuritis multiplex and cranial neuropathies.**

TAKE HOME MESSAGE

- Aside from the common glandular signs and symptoms, Sjögren syndrome may also cause mononuclear infiltration and immune complex deposition involving extraglandular sites producing several **extraglandular manifestations** (EGM).
- The focus should be on the more prevalent and significant EGMs including involvement of the **nervous system, pulmonary manifestations, vasculitis associated with primary Sjögren syndrome, and arthropathy**.

THANK YOU