WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Case Report on Cervical Tuberculous Myelitis

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DOI: https://doi.org/10.55248/gengpi.4.1223.0135

ABSTRACT

Introduction:- TB of the cervical spine is uncommon, accounting for only 3-5 percent of all instances of spinal tuberculosis. A total of eight patients with cervical TB were examined between 1989 and 1992. They were all suffering from neck ache. The four youngsters have a kyphotic malformation. The disease was widespread in the youngsters, with a big prevertebral abscess forming, but it was limited to one or two motion segments in the adults. In four of the eight patients, there was cord compression.

Clinical findings :- Neck pain, trouble moving the neck, altered sensorium, weakness in the lower limbs, inability to stand and walk, and swallowing difficulties are all common symptoms.

Diagnostic evaluation :-

CSF Exam:- RBC-Nil/HPF WBC-0-1 cell/HPF DLC- primarily mononuclear cell (tymphocyte) TLC-approximately 07cell/cumm TLC-approximately 07cell/cumm.

CBC investigations : RBC count –4.73, WBC count-4000, total platelet count-0.16, Hb percent -12.3, MCHC-34.2, MCV-76, MCH-26, RBC count –4.73, WBC count-4000, total platelet count- 0.16

Peripheral smear :- RBCs: Hypochromic normocytic RBCs with occaissional metocytic RBCs. Platelets According to the cell counter, APC 16.000 cells mm3 were reduced on smear. AEC-400 cells have no hemoparasites.

Therapeutic intervention :- 1 gm solmedral IV in 100 mL NS inj (OD). T. AKT 41 kit thrice a day, inj pantacid 40 mg IV OD, inj 4 mg IV TDS, T. Benadon 40 mg 12 OD.

Outcome :- Patient is able to move her neck somewhat, the scar has gone, and she has maintained her fluid and electrolyte balance.

Conclusion:- The focus of this study is on medical management and how excellent nursing care helped to avert additional problems. The patient response to treatment has been generally favourable.

Keywords: Tuberculosis, Myelopathy, Spinal cord, Antituberculous treatment, Cold abscess, Mycobacterium tuberculosis

Introduction :-

Tuberculosis can cause damage to the central nervous system, but it's a rare complication. Transverse myelitis (TM) is a localised inflammatory disease of the spinal cord that is frequently caused by infections and can result in permanent paraplegia or quadriplegia.[1] Transverse myelitis caused by tuberculosis is extremely rare and usually goes unnoticed. A spinal cord CSF analysis and magnetic resonance imaging, as well as bacteriological evidence of tuberculosis infection, are required for diagnosis.[2] After empiric anti-tuberculosis treatment and high doses of systemic corticosteroids, a tuberculosis patient with meningitis and transverse myelitis showed clinical improvement and complete neurological recovery.[3]

Patients Identification :- At Acharya Vinoba Bhave Rural Hospital, a 47-year-old woman was admitted to the neurology department on November 16, 2021 with a known case of cervical tuberculous myelitis.

Present medical history :- A 47-year-old woman admitted to the Achara Bainova Barb District Hospital had immobility, difficulty swallowing, pain in the right lower extremity, sensory changes, salivation, one vomiting, two days of neck pain, and difficulty in neck movement. Was the main complaint. Upper limb weakness occurred (cannot hold object in hand)

Past medical history :- A 47 yr female was having past medical history of Tuberculosis 6 month ago. And she has been treated with 1 st line Tuberculosis drug on (15/6/2021) are –Rifampicin (150 mg), Isoniazid (75mg), Ethambutol (275 mg), and developed lesions all over body, burning sensation, itching and fever.

Family History: The 47-year-old patient has a fore family of four members. She had a dishonest marriage. All families except patients are tuberculosis negative.

Past intervention and outcome :-

Clinical findings:- Neck pain, difficulty in neck movement, altered sensorium, weakness in lower limbs, and unable to stand and walk, difficulty in swallowing. And developed weakness in upper limbs (unable to hold object in hand), drooling of Saliva.

Physical Examination :-She had handled with tuberculosis drug Rifampin (a hundred and fifty mg), Isoniazid (75mg), Ethambutol (275 mg),on 15/6/2021. She had advanced Pyrazinamid brought on pores and skin rash, On 25/10/2021 and handled with T.Prednisolones 10 mg, calamine lotion BD × five days . At gift lesions is absent. And altered sensorium, immobility. Difficulty in swallowing.

General parameters **–**Temperature- 37°c, BP-100/60mmhg, Pulse -75 beat/min, Respiration Rate 20 breath/min, SPO2- 98%,

Skin :- Multiple hyperpigmentation papules and patch, as well as pyrazinamid-induced skin rash (due to a side effect of an anti-tuberculosis medicine).

Diagnosis intervention:-

CSF Exam:- In a vacutainer labelled as CSF, I received around 0.5 mL of clear, translucent fluid. RBC-0-1 cell/HPF WBC-0-1 cell/HPF DLC-predominantly mononuclear cell (tymphocyte) TLC-approximately 07cell/cumm TLC-approximately 07cell/cumm

Increased protein and low sugar in CSF.

CBC investigation : RBC count – 4.73, WBC count – 4000, total platelet count – 0.16, MCHC-34.2, MCV-76, MCH-26, RBC count – 4.73, WBC count – 4000, total platelet count – 0.16.

Peripheral smear :- RBCs: Hypochromic normocytic RBCs with occaissional metocytic RBCs. Platelets APC 16.000 cells mm^3 according to cell counter, reduced on smear. AEC-400 cells have no hemoparasites.

Therapeutic Intervention :-

T.AKT 4 kit daily,(**Rifampicin**150 mg, **Isoniazid** 75mg, **Ethambutol** 275mg).

injsolmedral -1gm IV in 100 ml NS OD (Relieve swelling , itching, burning sensation).

Levoflox 750 mg OD(Antibiotics used to treat bacterial infections)

injpantacid 40 mg IV OD (is commonly used for the diagnosis or treatment of Heartburn, Irritable bowel syndrome, Indigestion)

T.Benadon 40 mg ½ OD(It is used for the treatment and prevention of vitamin B6 deficiency)

Inj Emeset 4 mg (Anti-emetic drug **)**

Nursing management

Nursing assessment

Because key warning indicators take time to show, tuberous sclerosis is a chronic disorder that necessitates regular monitoring and follow-up. Later in life, tests that are equivalent to those used at diagnosis might be incorporated into a daily monitoring practise. Complications can be avoided if abnormalities are detected early enough.

Coping and support

1. When a patient is diagnosed with tuberous sclerosis, his or her family may be confronted with a variety of challenges and unknowns. The inability to predict how a patient's health and growth will progress over time is one of the most challenging aspects of this disorder.[4]

2. The patient can only have minor problems and perform at a level that is comparable to peers in terms of academic, social, and physical abilities. Alternatively, the patient's health and developmental issues could be more serious, resulting in a life that is less autonomous or different from what the patient anticipated.[5]

Teaching about the coping strategies to the patient and relatives:

1. Make a schedule for screenings. Learn everything you can about tuberous sclerosis, and work together with your doctor to build a health and developmental screening and tracking routine. If problems are discovered and corrected early on, infections can be prevented.[6]

2. Behavioral issues should be treated as soon as possible. Tuberous sclerosis can cause a wide range of behavioural problems in children, which can be difficult for parents to deal with. It is also not the responsibility of the patient. As soon as difficulties occur, consult the patient's psychiatrist, and engage with the school or a mental health professional to address the curriculum as well as behavioural and mental health services. Seeing patients as soon as feasible is preferable.[7]

3. Demonstrate your support and affection for others. In order to achieve their full potential, patients require a lot of love and support. Counseling with a mental health professional may be important to aid adjustment and coping. Parents could benefit from respite care services.[8]

4. Make friends with your neighbours' families. It may be beneficial for the patient to connect with other tuberous sclerosis families. Inquire with the patient's health care provider about a local support group, or contact the Tuberous Sclerosis Alliance. [9]

Getting ready for the patient's appointment

1. Tuberous sclerosis symptoms and signs can be detected as early as birth. Alternatively, the patient can discuss his or her concerns with the doctor first. Following a physical examination, the patient may be referred to one or more physicians for additional testing and care. [10]

2. Request that the patient be accompanied to the appointment by a trusted family member or friend. Bring someone with you who can offer emotional support and assist the suffering in recalling everything. [11]

Potential Complications/Problems in Collaboration

- **a.** Fluid collection in the interstitial spaces of the brain.
- **b.** Cardiac problem
- **c.** Renal impairment.
- **d.** Lung Dysfunction is a condition in which the lungs do not function properly.
- **e.** An increase in the likelihood of (malignant) tumours.
- **f.** Visual impairment**.**

Communication:

Determine how difficult it is to communicate or respond to a query using words[12]

Discussion

A case of TB vertebral osteomyelitis of the first and second cervical vertebrae, with substantial surrounding soft-tissue involvement and spread into the mediastinum and bilateral flanks, is described.[14] The clinical manifestations of TB vertebral osteomyelitis vary depending on which vertebrae are affected.[15] Pott's illness is a symptom of TB vertebral osteomyelitis in the lower thoracic and lumbar spine, which is the most prevalent site of tuberculosis vertebral osteomyelitis.[16]

Conclusion

A 47-year-old woman is being treated at the Acharya Vinoba Bhave rural hospital. Immobility, difficulties swallowing, pain in the lower right limb, changed sensorium, saliva dribbling, 1 episode of vomiting, neck pain since 2 days, difficulty in neck movement, and developed weakening in the upper limb were the main complaints (unable to hold object in hand)

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