18th European Congress of Psychiatry. Munich,Germany,2010.

NEUROSYPHILIS. A CASE REPORT.

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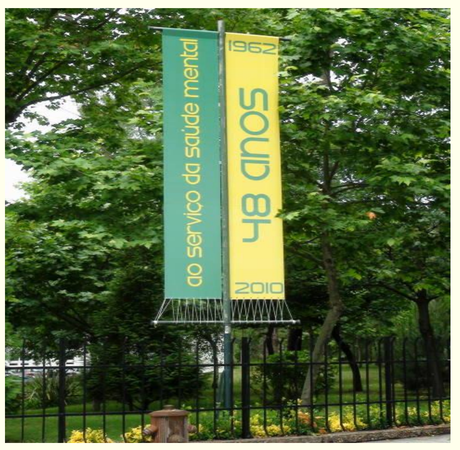

Background: Neurosyphilis (also known as general paresis), peaking in incidence 20 to 30 years after infection, represents a progressive frontotemporal meningoencephalitis with loss of cortical function. It often starts with subtle cognitive and emotional changes, such as problems with motivation, memory problems, irritability, and poor concentration, and if untreated can lead to dead. The disease may mimic any psychiatric disorder. Half of the patients with neurosyphilis will manifest with dementia, of whom one-quarter will have prominent psychiatric problems, such as depression, paranoia, psychosis, or mania.[1]

Objectives: To report a clinical case on neurosyphilis.

Case presentation:

A 66-year-old married man with a rigid premorbid personality was admitted to an Old Age Psychiatric Ward in August 2009 presenting with a two-year history, worse in the last 5 months, of :

-Confusion
-Marked emotional lability
-Desinhibited behaviour
-Executive deficits with behavior perseveration
-Personality changes with heteroagressivity
-Delusions of persecution and poisoning
-False recognition
-Gradual loss of his ability to cope with activities of daily living.

Neuropsychological assessments on admission:

Mini Mental State Examination (MMSE) score was 20/30 on admission.

Clock face test with 2.5 points in 3.

•Nursing Assessment:

•Barthel Index:[2] score 85/100.

Differential Diagnosis:

- Frontotemporal Dementia
- •Alzheimer´s Dementia
- •Vascular Dementia
- •Dementia due to General Medical Condition

Neuroimaging:

- •CT scan was normal
- •EEG was normal

Laboratory :

•Serological tests for syphilis were positive for both the Venereal Disease Research Laboratory test (VDRL) and Treponema pallidum hemaglutination test (TPHA).
•Cerebrospinal fluid (CSF) revealed a positive VDRL (cytology: 2 erythrocytes/µl, 30 leucocytes/µl with 24 mononuclear cells/ µl).
•Additional tests including human immunodeficiency virus (HIV) test were negative.

Diagnosis:

Dementia Due to General Medical Condition
- •Neurosyphilis

Treatment during hospital admission:

•Benzyl penicillin 18 million units i.v.. daily, as 3 million units every four hours during 21 days.
•Risperidone: 2,5mg/day
•Lorazepam : 3,5mg/day
•Memantine was commenced 2 weeks after penicillin course completion.

⇨ Outcome: November 2009

Neuropsychological assessments

- •MMSE score: 28/30.
- •Clock face test with 3 points in 3.

➢ Poor outcome at the executive function battery.

- •**SKT** (The Short Cognitive Performance Test):**5 points**
  Slight indication of disorder or organic brain syndrome.
- •**Wisconsin Card Sorting Test:**
  Low percentage of correct answers (42.2%);
  High incidence of mistakes;
  Presence of persevering.
- •**Complex figure of Rey-Osterrieth:**
  Below the 10th centile on tests of memory and copy;
  Denotes deficit at the level of executive functions (planning and implementation of strategies of action) .
- •**Trail Making Test:**
  - •Tests A and B below 25th percentile.

Nursing Assessment:

- •Barthel Index: 95 points

Occupational Therapy Assessment:

- •**Instrumental Activities of Daily Living**
  - •Euroteste: 29.5 points in 35 (cutoff ≤ 23)
  - •Use the phone: Independent
  - •Doing the shopping: need supervision
  - •Mobility in the community: need monitoring
  - •Filled independently and a check

Social Interventions:

- •Information and guidance on Social Support and Grants
- •Caregiver Support - understanding the process of becoming ill, and their relationship with the social response.
- •Institutionalization in a nursing home

Medical Follow-up:[3]

- •An increase of two or more dilution steps (four-fold) in a non-treponemal test confirmed on a second specimen suggests reinfection or reactivation;
- •Follow-up examination of CSF should be performed 6–12 months after treatment of neurosyphilis;
- •Specific treponemal tests may remain positive for life following effective treatment; proper documentation is necessary to prevent unnecessary retreatment;

Prognosis:

- •It is not predictable any recovery beyond what has already been achieved.
- •The patient has no insight and believes that he can carry out all activities prior to the disease.
- •If not supervised he will attempt to use credit cards, chequebooks, car, etc..
- •In a containing and protective environment, under the care of a multidisciplinary team, he may maintain a level of clinical stability.

Conclusion: Neurosyphilis remains a differential diagnosis for a wide variety of psychiatric syndromes, including dementia. However, the incidence of neurosyphilis presenting initially with frontotemporal impairment is unclear. High-risk groups such as patients with neuropsychiatric diseases should be routinely screened with serological tests in order to prevent morbidity and help to erradicate syphilis.

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