ATYPICAL PRESENTATION OF NEUROSYPHILIS
(Report of Five Cases)

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Summary

Five cases of neurosyphilis with atypical manifestations have been reported. Of these four cases presented as acute neurological illness and showed variable recovery after antisyphilitic therapy. One of these cases had Parinaud sign which was unaffected by treatment. One case presented as dementia and gave poor response to therapy. In only one of these five cases was reagin in CSF demonstrated. Lange's colloidal gold test was negative in all. As such failure to demonstrate reagin in CSF does not rule out the diagnosis of neurosyphilis.

In an antibiotic era patients may inadvertently receive some antibiotics prior to presentation to a clinician and therefore are unlikely to present with typical neurological and laboratory findings.

The incidence of neurosyphilis has markedly decreased since the advent of antitreponemal chemotherapeutic agents. The natural course of the disease is also affected by the use of antibiotics either for syphilis itself or for any other infection of the body. In this antibiotic era many patients may inadvertently receive some antibiotics prior to presentation to clinician and are unlikely to present with typical neurological and laboratory findings[1,2]. So reliance on clinical and laboratory parameters established in pre-antibiotic era may be misleading.

The diagnosis of neurosyphilis is difficult due to lack of an ideal or infallible laboratory test, the obscurity of the clinical symptoms and the rising incidence of atypical features.

Cases of neurosyphilis present in many types of medical disciplines. Lack of experience and familiarity with the clinical manifestations may lead to delay in diagnosis and irreversible damage to the central nervous system. It seems probable that more cases of neurosyphilis may occur in the future because of a rising incidence of early syphilis cases which are not always diagnosed and treated properly.

Five cases of neurosyphilis are reported here, the purpose of this presentation is to draw attention to the fact that neurosyphilis, though uncommon, is not as rare as some would have us believe and that the disease may present in a variety of unfamiliar guises.

Case No. 1 :

Male aged 21 years was admitted to a Military Hospital on 03—12—73 with complaints of diplopia on looking upwards and weakness of left side of body

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of sudden onset. History revealed that 6 days prior to this episode he had an attack of vertigo, vomiting and visual symptoms in left eye (blurring of vision and diplopia).

Following the above episode patient became unconscious for 4-5 minutes. There were no convulsive movements and no incontinence of bowel or bladder. On waking, patient had no recollection of the episode. There was no history of epilepsy in his own past or in members of his family.

Two years later while travelling in a train on 02 Dec. 75 patient again became unconscious for a few minutes. On regaining consciousness, he noticed weakness of left side of the body.

Examination at that time showed that patient was well oriented in time and space. There was no evidence of meningism or irritability. There was slight restriction of eye movements laterally but marked difficulty for upward gaze. Left facial asymmetry was present along with weakness of left arm and leg muscles (power grade IV). There were no sensory changes or cerebellar signs. Pupils were normal in size and reacting to light. There was no ptosis or nystagmus Reflexes were brisk on left side. Family h story revealed that patient had been married for four years and had no issues. Wife had two abortions. Patient denied any history of extramarital exposure. There was no history of genital sore or urethral discharge. However, he gave history of having maculopapular, non-itchy rash all over the body in August 1975 which had subsided without any treatment.

Routine laboratory investigations including blood urea, serum electrolytes, cholesterol and blood sugar were within normal limits. On 19—1—76, blood serology revealed reactivity to Waisermann (WR) VDRL and Kahn-test (64 KU). Serology repeated on 5-4-76 showed WR-reactor, Kahn-reactor (64 KU) and VDRL reactor (16 Dil). C S F done on 05—12—75 and 18—2—76 was clear, colourless and under normal pressure. Cells protein, chlorides, globulin, 'Wasserman and Lange's Colloidal gold test were all normal. X-ray skull was normal. No evidence of space occupying lesion was detected by carotid angiography and electroencephalography. In April '76, patient was given antisyphilitic treatment with a course of benzathine penicillin (3 megaunits weekly for 4 weeks). His condition improved remarkably after treatment and left sided weakness recovered completely. Defective upward gaze is however still persisted (Fig 1). Blood serology tests for Kahn, VDRL and WR done after treatment on 05—5—76 showed reactivity only in the VDRL test (8 Dil). Patient's wife also had blood serology positive for Kahn and VDRL and was given antisyphilitic treatment.

Case No. 2 :

Male aged 32 years, while coming from the bath room on 6—1—76 morning fell on the ground and became unconscious for 3 minutes. On regaining consciousness he was unable to move his left arm fully and was admitted to a Military Hospital. On 12-1-76,

he again had a similar episode and on regaining consciousness, he noticed complete loss of power in left half of body with urinary retention and dribbling of saliva from the left side of the mouth. He regained control of the bladder in 3-4 days.

He had no history of head injury, convulsions, diabetes or hypertension. He gave history of exposure to a prostitute in November 1970, which was followed by a sore penis. Sore regressed after treatment with a few injections of penicillin. 8 weeks later he had non-itchy, generalized eruptions over the body with joint pains.

On examination he had a healed scar on the prepuce. No generalized lymphadenopathy or rash was detected. There was left sided hemiplegia with supranuclear VII nerve palsy on the same side. Deep reflexes on left side were exaggerated with extensor plant r response and positive ankle clonus. No other abnormality were detected in the CNS or in any other systems.

Investigations including blood sugar, blood urea and blood cholesterol were within normal limits. X-ray of chest, skull and spine were normal. Blood STS on 19—1—76 showed reactivity to WR and VDRL (32 Dil). Kahn was positive (128 dil). CSF examination on 8-1-76 showed cells 25/cu mm (Lymphocytes) protein 80 mg%, sugar 62 mg%, chlorides 750 mEq/L, and raised globulin CSF, WR and Lange's colloidal gold test were negative.

He was given a course of antisyphilitic treatment in June 1976 and physiotherapy after which power in the hemiplegic limbs recovered considerably. Blood STS repeated on 5—5—76 showed positive response in Kahn (4 dil) and VDRL (8 dil) tests. CSF examination repeated on 12—5—76 was within normal limits.

Case No. 3 :

An unmarried male aged 28 years was admitted to Military Hospital on 13—4—76. He developed burning sensation in abdomen on 12—4—76 following which he noticed sudden weakness in both lower limbs with incontinence of bowel and bladder. Spastic paraplegia developed within a week. There was no history of trauma, cough, fever, visual disturbances or loss of consciousness. Patient gave history of penile sore following sexual exposure to a casual contact in December 1972 after which he took few injections of penicillin from a private practitioner. He was asymptomatic till 12—4—76.

On examination, muscle wasting was present in both lower limbs with motor power grade III - IV. Deep reflexes in lower extremities were exaggerated with plantars extensor and positive ankle clonus on both sides. Superficial abdominal reflexes were absent below the umbilicus. Rest of the CNS examination was normal.

Routine blood investigations were normal, X-ray chest and lumbosacral spine NAD. Blood STS on 14—4—76 showed positive reaction to WR, Kahn VDRL (1 : 32). CSF on 6—4—76 was clear, colourless and under normal pressure. It showed cells 185/cu mm, proteins 600 mg% and increased globulins. CSF - WR was reactor. CSF direct smear with gram staining showed WBC but no organisms. No A F B was detected on Zeil-Neilson staining. CSF culture was sterile. Lange's colloidal gold test was negative.

Patient was given antisyphilitic treatment in April 1976 alongwith physiotherapy and care of the bladder and bowel after which he regained full control of bowel but partial control of bladder. CSF repeated on 10—6—76 showed cell 9/cu mm, proteins 60 mg% and globulins slightly raised. WR was

reactive. Blood STS on 3—7—76 was non-reactive.

Case No. 4 :

A 30 years old married male was admitted on 17—9—75 to Military Hospital with history of abnormal behaviour. On admission he was unable to state his complaints properly. He was taking no interest in daily routine and was unable to perform daily work and routine personal duties. He was found to be incontinent of urine both day and night. Patient gave no history of extramarital exposures. His wife had never conceived. The family history was noncontributory. Patient was heavily addicted to drinking and smoking.

On examination patient was afebrile. He was un-co-operative at the time of examination and took no interest in self and surroundings. Speech was montonous. He repeated few words again and again, was found to be emotionally blunt. His orientation for time, place and person was poor. Memory and judgement were impaired. Pupils were central but reacting sluggishly to light. Deep reflexes in lower extremities were brisk with bilateral extensor plantar response. Rest of the CNS examination was normal. General systemic examination revealed no abnormalities.

Lab investigations–Routine Screening tests were normal. Serology for STS showed the following :–

	WR	KAHN	VDRL
29.12.76	R	R (16 Dil)	R (32 Dil)
12.1.76	R	R (64 Dil)	R (32 Dil)
21.1.76	R	R (128 Dil)	R (16 Dil)

CSF on 10–10–75 was clear, colourless and under normal pressure. Cell count was not done. Total proteins was 70 mg%, sugar 80 mg%, chlorides 740 mEq/L, and globulins increased. CSF was WR reactive. Lange's colloidal gold test negative.

Patient was given antisyphilitic therapy in Jan 1976 along with psychotropic drugs and occupational psychotherapy after which orientation and behaviour improved slightly. He stopped passing urine in bed but otherwise response to treatment had been poor. CSF repeated on 20—12—76 showed protein 25 mg%, globulins not increased, WR non-reactor. Cell count was not done.

Case No. 5 :

Male aged 30 years developed pain in right mammary area on 18 March '77 which was aggravated on coughing and sneezing. Next day he developed weakness of both lower limbs which gradually increased and was followed, after a couple of days, by weakness of upper limbs. This was accompanied by shooting pains radiating from both thighs to the soles. With these complaints he was admitted to Military Hospital on 27 April 77. He did not give any history of injury, drug intake or fever. There was no history of urinary or bowel trouble and no history suggestive of diabetes or hypertension. Patient gave history of extramarital exposure in Aug 76. He had one healthy 3 year old child.

General examination revealed generalised lymphadenopathy involving cervical, epithrochlear and inguinal groups of lymph nodes which were painless, discrete, firm and freely mobile.

Examination of central nervous system revealed asymmetric weakness of all four limbs, right upper and lower extremities being more affected than left. Deep reflexes were normal except that knee jerk was bilaterally exaggerated. No other abnormalities were detected. Examination of abdomen showed liver to be enlarged 3 cm below costal margin, firm, non-tender, smooth. Spleen