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| Case I |
| Admission & | **1** | **2** | **3** | **4** |
| Time Course  | **Age: 24 y** | **3 y later**  | **2 y later** | **3 months later** | **One month later**  |
| Clinical Properties | Right-sided weakness and numbness  | Paraparesis  | 6 months after childbirthParesthesias and numbness in extremities, face and tongue  | Quadriparesis (LE>UE, distal>proximal); hyperactive DTR;hypoesthesia in distal extremities, diminished position sensation in lower limbs, severe allodynia in all extremities diminished visual acquity (left>right); absent left pupillary reflex; left sided peripheral hemifacial paresis and hypoesthesia; severe ataxia, bilateral dysmetriaEDSS=8.5  | Generalized hyporeflexiaFacial diplegia Left sided ptosis |
| MRI | Demyelinating disease  | Contrast enhancing lesion in cervical cord  |  | Multiple infra and supratentorial acute and chronic demyelinating lesions fulfilling Barkhof’s criteriaSegmental contrast enhancement of the CN II, III, V-X bilaterally (Figure 1a, d) | Enlarged and contrast-enhancing spinal nerve roots, and brachial plexuses (divisions, segments, and cords), bilaterally (Figure 1g, j) |
| CSF analysis  |  |  |  | CSF: Protein=276 mg/dL, acellular, OCB negative  |  |
| EMG |  |  |  | Severe demyelinating sensory and motor polyneuropathy  |  |
| Treatment🡪 Response  | IVPM🡪 complete remission  | IVPM🡪 complete remission  | IVPM🡪 no response  | Plasma exchange 🡪 partial response | Plasma exchange🡪 partial response,EDSS = 5  |
| Follow-up | Secondary progressive course during four years follow-up (Figure 1a) |
| Case II |
| Admission & | **1** | **2** | **3** | **4** | **5** |
| Time Course  | **Age: 13 y** | **2 y later**  | **2 y later**  | **6 months later**  | **2 moths later**  |
| Clinical Properties | Right sided ON  | Left sided ON  | Weakness and sensory loss on the left side & one month later on the right side  | Quadriparesis (LE>UE, distal>proximal); atrophic interosseous muscles; absent DTR in lower and hypoactive DTR in upper extremities; hypoesthesia below T5 dermatome bilaterally; loss of vibration and position sensations; diminished visual acuity and color vision in both eyes; bilateral horizontal nistagmus;bifacial paresis; diminished gag reflex, dysphagia; bilateral dysmetria  | Paraparesis EDSS was 8.0 again. This relapse was attributed to CIDP |
| MRI |  | Cranial and cervical demyelinating lesions fulfilling Barkhof’s criteria |  | Multiple chronic and acute demyelinating lesions and contrast enhancing multiple cranial nerves, bilaterally Markedly enlarged and gadolinium-enhancing cauda equina, cervical and lumbal plexuses (Figure 1b, e, h, k) | Partial resolution of the cranial and peripheral nerve enhancement, contrary to MS plaques which increased in number (localized at clinically irrelevant sites) |
| CSF analysis  |  |  |  | CSF: Protein=237 mg/dL, acellular, OCB negative  |  |
| EMG |  |  |  | Severe demyelinating sensory and motor polyneuropathy |  |
| Treatment🡪 Response  |  | Interferon β | Pulse steroid + oral prednisolone🡪 no improvement | Plasma exchange 🡪 pyramidal and motor symptoms improved partiallyIVIG 🡪 EDSS improved from 8.0 to 5.0, NCS showed considerable improvement Discharge: 0,4gr/kg IVIG every three weeks  | Plasma exchange + pulse steroid 🡪 able to walk without supportDischarge: Plasma exchange 2/week |
| Follow-up | During one year follow-up, patient had two more relapses. There was near complete resolution of the cranial and peripheral nerve abnormalities on repeat MRI (Figure 1b) |

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| Case III |
| Admission & | **1** | **2** | **3** |
| Time Course  | **Age: 27 y** | **3 months later**  | **In the following 6 months** |
| Clinical Properties | Gait difficulty and tingling in feet. Increased DTR in lower extremities | Visual impairment in left eye, One month later in the right eye | Quadriparesis (LE>UE, distal>proximal), normoactive DTR’s in upper, absent DTR’S in lower extremities; hypoesthesia in LE and below T7 dermatome, diminished position and absent vibration sensation in LE; diminished color vision in both eyes, bilateral dysmetria and dysdiadochokinesia, urinary and fecal incontinence  |
| MRI |  |  | Cranial MRI: Supratentorial multiple chronic and a few acute demyelinating lesions fulfilling Barkhof’s criteria and multiple contrast-enhancing cranial nerves Enlargement and contrast-enhancement in most spinal nerves (Figure 1c, f, i, h) |
| CSF analysis  |  |  | CSF: Protein=267 mg/dL, acellular, OCB negative  |
| EMG |  |  | Modereate demyelinating sensory and motor polyneuropathy |
| Treatment🡪 Response  | 5 days pulse steroid 🡪 partial improvement | 5 days pulse steroid 🡪 complete remission | Plasma exchange 🡪 substantial improvement in motor strength Discharged with oral prednisolone and cyclophosphamide treatment |
| Follow-up | Almost complete resolution of gadolinium enhancement in supratentorial lesions but persistance of contrast enhancement of cranial nerves two months later (at discharge)  |
|  Case IV |
| Admission & | **1** | **2** | **3** |
| Time Course  | **Age: 36 y** | **3 months later**  | **2 years later** |
| Clinical Properties | Mild paraparesis and generalized paresthesia | Bilateral internuclear ophtalmoplegia; mild paresis in distal LE; absent patella and ankle jerk reflexes; wide based gait  | Progressive moderate weakness in LE; absent vibration sensation in LE, worsening of patients symptoms were considered to be linked to progression of CIDPDiagnosis of MS |
| MRI |  | A few chronic demyelinating lesions in cranial MRI, cranial nerves did not show contrast-enhancement No abnormality in the peripheral nerve roots in cervical MRI  | New supratentorial hyperintense lesions on T2 sequences, some of which with contrast enhancement. (fulfilling Barkhof criteria, but clinically silent)  |
| CSF analysis  |  | CSF: Protein=27 mg/dL, acellular, OCB positive  |  |
| EMG |  | Diffuse demyelinating polyneuropathy with chronic axonal damage in sensory and motor nerve fibers | Demyelinating features with progression of chronic axonal loss  |
| Treatment🡪 Response  |  | *5 days pulse steroid* 🡪 BINO and paresis recovered | Azathioprine (100mg/day)  |
| Follow-up | Slowly progressive course of CIDP and to a lesser extent MS during five years follow-up |
| Case V |
| Admission & | **1** | **2** |  |
| Time Course  | **Age: 55 y** | **Age 71 y** |  |
| Clinical Properties | Mild gait problems and glove-and-stocking paresthesia | Progressive and insidious course; mild to moderate quadriparesis, atrophic thenar and hyothenar muscles; absent or hypoactive DTR’s; significant loss in all of the sensory modalities, positive Romberg's test, wide based gait, could walk with support; visual and hearing loss; dysmetria and dysdiadochokinesia; memory impairment and urinary incontinence |
| MRI |  | Diffuse cervical, infra- and supratentorial non-enhancing T2 hyperintense lesions, black holes in T1 series  |
| CSF analysis  |  | CSF: Protein=43 mg/dL, acellular, OCB positive  |
| EMG |  | Severe demyelinating sensory and motor polyneuropathy |
| Treatment🡪 Response  |  | *5 days pulse steroid* 🡪 no improvement  |
| Follow-up | Patient lost to follow-up |