Akron, Ohio

January 19, 1931

Progressive Note - [redacted]

Local finding at previcus examination by Dr. Kehoe (October 4, 1930) was that of a right wrist drop with complete paralysis of all the forearm muscles supplied by the radial nerve (brachio radials M. not mentioned). Sensorium unaffected - all other muscle groups normal. Atrophy of arm muscles and deltoid was present, with no paralysis.

Examination forearm and hand this date shows normal fexion, pronation, supination etc. - 60-75% strength (as compared to left) for extension right wrist and fingers. Lumbricales act weakly - abduction and extension thumb normal. Sensorium normal. Atrophy arm and forearm definite but not great. Nerves not palpable. No pigmentation, cyanosis or trophic changes. History and general physical examination same as previous record, except blood pressure now 118/70, and there is no fever. Present weight 156 lbs.

Impression

Healing lesion at middle 1/3 right radial nerve.

Discussion

No attempt is made four months after onset of this lesion, exactly to definie the etiological agent. However, keeping in mind the typical radial distribution and type of onset one may, in light of the uncomplicated course and rapid recovery, eliminate (1) a neuritis of infectious type - against this also we have the absence of nerve trunk tenderness and pain, (2) a traumatic neuritis is a possibility but the protracted course is against this.

Taking everything into condideration one feels that we are dealing with a toxic peripheral neuritis causative agent unknown. The patient has had considerable exposure to gasoline vapor which may be suggested as a probable contributing agent at least. Lead as a factor is ruled out by, (1) course and recovery, (2) absence of significant exposure, (3) negative physical findings for lead, (4) negative laboratory findings.

Poliomyelitis has been suggested as the agent, but the distribution, course, and even recovery are definitely opposed to such a diagnosis. In addition the following points -

(1) Absence signs acute infection
(2) Absence headache or prostration
(3) Absence hyperaesthesia and meningeal symptoms
(4) Absence residual paralysis.
(5) Radial neuritis is common - this lesion is in commonest location.
(6) Polio arm is 2-4 times less common than polio in legs or elsewhere.

Discussion (cont)

(7) One would necessarily have to assume a poliomyelitis damaging the ventral horn cells of 5-6-7 and 8th cervical segments - damaging only those cells supplying the radial nerve branches below its middle third. Radiculitis 7th cervial rib, plexus palsis etc., like poliomyelitis or other cord and canal lesions can be ruled out on basis of distribution and course.

The patient was apparently suffering from some chronic infection for a month or so prior to the occurrence of his palsy, but in the absence of any knowledge as to the nature of the illness we cannot include it in a consideration of possible causes.

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