

– Abstract –

Churg-Strauss Syndrome with Cervical Radiculopathy – A Case Report –

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We experienced a case of Churg-Strauss syndrome (CSS) with mononeuritis multiplex combined with asymmetrical cervical radiculopathy. A 27-year-old man, whose suffered from asthma and allergic rhinitis since 1999, was admitted because of both legs edema and pain, necrotizing vesicles around the ankle joint, severe muscle weakness in all extremities and abdominal pain. The clinical manifestations are revealed that both legs visible muscle atrophies, right foot drop, and left claw hand deformity. Laboratory findings are as follows; eosinophilia in peripheral blood (38%: 3382/mm³), elevated serum IgE level (6420IU/μl), positive autoantibodies (both ANCA and PNCA). Electrodiagnostic studies were compatible with mononeuritis multiplex, which involved in the left ulnar, the right peroneal, both superficial peroneal, sural, and tibial nerves, combined with the left cervical radiculopathy. Churg-Strauss syndrome has very deleterious organic involvement such as cardiopulmonary, neurological, gastrointestinal, renal, dermatologic and musculoskeletal systems resulted from necrotizing systemic vasculitis. The sural nerve biopsy revealed that demyelination associated with axonal degeneration, infiltration of a few lymphocytes in the endoneurial and perineurial connective tissues. We report a case of CSS with mononeuritis multiplex, combined with asymmetrical cervical radiculopathy without previous neurological abnormalities.

Key Words : Churg-Strauss syndrome, Mononeuritis multiplex, Cervical radiculopathy

1951 Churg Strauss
Strauss (CSS)

Churg-^{1,5}

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가

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1,3,4,6

(Fig. 1),
(Fig. 2)

0/5,

3/5

2/5,

4/5

Churg-Strauss 1

38% (3382/mm³), IgE 6420IU/μl 가

가 P-ANCA C-ANCA

HRCT

27 2000 5 9

5

1999 11

(Fig. 3),



Fig. 1. There are numerous necrotizing vesicles and purpura around both ankle joints, and severe both legs edema.

Fig. 2. Severe visible muscle atrophy in the left hand first-web space.

Table 1. Motor and Sensory Nerve Conduction Study in Upper Extremity

A. Motor Nerve Conduction Study

Nerve	Right				Left			
	Latency(ms)	Amplitude(mV)	NCV ¹ (m/s)	F-wave	Latency(ms)	Amplitude(mV)	NCV ¹ (m/s)	F-wave
Median	3.2~7.6	11.3	56.7	28.9	3.0~7.4	17.8	61.2	28.2
Ulnar	2.4~6.5	19.8	62.0	29.5	4.5~7.8	0.3	40.4	not evoked
Radial	2.2~6.5	8.9	50.4		2.3~5.9	10.5	61.1	

B. Sensory Nerve Conduction Study

Nerve	Right		Left	
	Latency(ms)	Amplitude(mV)	Latency(ms)	Amplitude(mV)
Median	3.4	10.6	3.7	15.6
Ulnar	3.1	20.4	not evoked	
Superficial Radial	2.3	17.2	2.3	30.0

1. NCV: Nerve conduction velocity

Table 2. Motor and Sensory Nerve Conduction Study in Lower Extremity

A. Motor Nerve Conduction Study

Nerve	Right				Left			
	Latency(ms)	Amplitude(mV)	NCV ¹ (m/s)	F-wave	Latency(ms)	Amplitude(mV)	NCV ¹ (m/s)	F-wave
Peroneal		not evoked		not evoked	4.4~12.9	0.7	40.3	not evoked
Tibial		not evoked		not evoked		not evoked		not evoked

B. Sensory Nerve Conduction Study

Nerve	Right		Left	
	Latency(ms)	Amplitude(mV)	Latency(ms)	Amplitude(mV)
Superficial Peroneal		not evoked		not evoked
Sural		not evoked		not evoked

1. NCV: Nerve conduction velocity

. 1994 Csernok¹⁰ Churg-Strauss (55~70%), X
 ELISA(Enzyme
 Linked Immunosorbent Assay) ANCA(antibody to
 neutrophil cytoplasmic enzyme)가 44~66%^{4,5} CSS 50~70%
 ANCA 가 , , ,
 Churg-Strauss ,
 CSS 20~40⁴ ,
^{4,8} ,^{1,4,12}
^{4,7,11} CSS 50% ECG

Table 3. Needle Electromyography Findings

Muscles	Right		Left	
	ASA ¹	MUAP ²	ASA	MUAP
Paracervical(C5-T1)	0	normal	++	normal
Biceps brachii	0	normal	+++	normal
Triceps	0	normal	0	normal
Extensor carpi radialis	0	normal	0	normal
Flexor carpi radialis	0	normal	0	normal
Flexor carpi ulnaris	0	normal	+	normal
Abductor pollicis brevis	0	normal	0	normal
Abductor digiti minimi	0	normal	++	normal
First dorsal interossei	0	normal	++	normal
Paralumbar(L3-S1)	0	normal	0	normal
Vastus lateralis	0	normal	0	normal
Biceps femoris	0	normal	0	normal
Gastrocnemius	++	normal	0	high amplitude
Tibialis anterior	++	no MUAPs	++	no MUAPs
Peroneus longus	++	no MUAPs	0	high amplitude
Extensor digitorum brevis	++	no MUAPs	0	normal
Extensor hallucis longus	++	no MUAPs	++	normal

1. ASA: Abnormal spontaneous activity(0, absent;+, rare;++, moderate;+++, profuse)

2. MUAP: Motor unit action potential(N, normal; CD, chronic denervation change, i.e., long duration, high amplitude and increased polyphasia)

48% , CSS , 1 , , , 1,4,13 , , , 1 , CSS , 1,4 , , , 4 , 20~47% , , , CSS , 1,4,8 , 가 , 가 , , , 15 , , 가 , , , 1,6,14 , 가 , , , 1,7 1995 , 가 , , , 11 CSS , 17 , 7 , , , 3가

Sehgal ² 47 CSS 29 (62%) , 17 25 , 7 , , , 3가

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