The relation between genital wart and multiple sclerosis

Sir,

Human papillomavirus (HPV) is a contagious virus which is transmitted via sexual contact and cause genital warts in both genders. Infection persists for months and as a skin disease has a relationship with the prevalence of psychological disorders.[1,2]

Multiple sclerosis (MS) is chronic inflammation of central nervous system. Cause of MS is unknown, but hypotheses have proposed possible roles of viral agents and vaccines in its pathogenesis, as studies have shown that viral infections are short-term risk factors for MS onset or relapses to occur in established MS.[3] Because of host's hormonal or cellular immune response is responsible for the progression of HPV and hence MS and both are more common in early to middle adulthood of females, we studied two woman patients for searching this relation.[1,3] Case-1 was a 25-year-old married woman from Iran that experienced genital wart after marriage. After confirming HPV infection by Pap smear test and curing with podophyllin, she afflicted to clinically isolated syndrome with symptoms such as left side numbness of the body after 4 months. Her personal history was significant for sever measles as a child, and strict chicken pox later in school but she had not medical history of MS among her first-degree relative.

In immunology tests of the patient, only the level of cardiolipin IgM was higher than normal range, [Table 1]. Furthermore, C-reactive protein, rheumatoid factor, rapid plasma reagin, and complete blood count (CBC) tests were normal. In neurologic test, abnormal upper and lower limbs somatosensory evoked potential demonstrated cortical somatosensory pathways conduction delay [Figure 1]. In brain magnetic resonance imaging (MRI), hyperintense lesion of the paraventricular regions and centrum semi-oval were seen [Figure 2].

Case-2 was a 30-year-old daughter that had afflicted to relapsing-remitting MS for 6 years and had not any sign of relapse. She was infected by HPV during relation with a sexual partner. After confirming HPV infection by Pap smear test and curing with podophyllin and in despite consuming immune modulator drugs, interferon beta, she experienced relapses and secondary-progressive MS form with signs such as temporary palsy of body total after 2 months. Cancer, heart and autoimmune diseases were observed in her first-rate family, but there was not history of MS among them. Her personal history was significant for mumps and chicken pox in a child, and anemia later in life.

CBC and immunology tests were normal, but her active disease was shown by evolving neurologic deficits or MRI evidence of new gadolinium-enhanced lesions. So that in cervical spine MRI with and without contrast, focal hyperintense lesion of the cervical cord at C2–C3 level was seen that showed no sign of enhancement after injection of contrast media [Figure 3].

Table 1: Results of immunology tests for Case-1

Immunological tests	Results	Units	Normal range
C3	100	mg/dl	55-120
C4	34	mg/dl	10-40
CH50	124	U	70-150
Anti-ssDNA Ab	16.8	IU/ml	Normal: <20 Elevated: >20
Cardiolipin IgG	<1.0	GPLU/ml	Normal: <10.0 Positive: >10.0
Cardiolipin IgM	15	MPLU/ml	Normal: <7.0 Elevated: >7.0

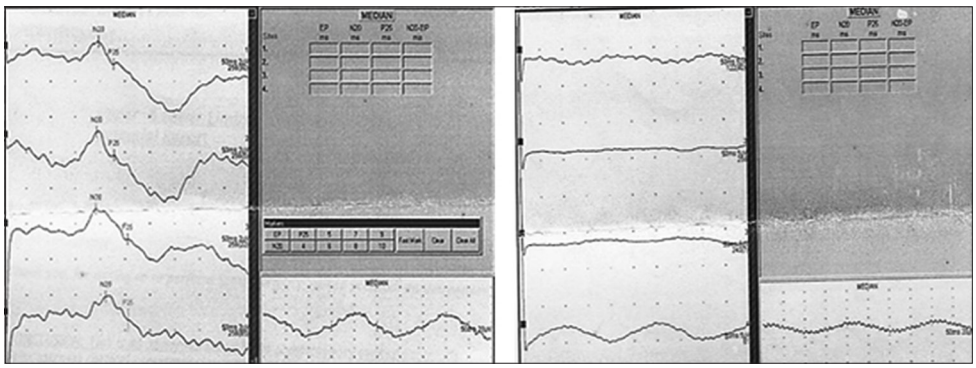

Figure 1: Upper and lower limbs somatosensory evoked potential report of Case-1