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Gender related differences of clinical, radiological features and oligoclonal band status among Sri Lankan Multiple Sclerosis patients

S.M.K. Gamage[1], P.P.B. Herath[1*], E.M.K.G.H.B.K. Ekanayaka[1], R.K.P.B. Rukmal[1], S.B. Adikari[1], I. Wijeweera[2] and H.M.A. Sominanda[1]

[1]Department of Anatomy, Faculty of Medicine, University of Peradeniya[1], Sri Lanka,
[2]Teaching Hospital, Kandy, Sri Lanka
[*]pasanbherath@gmail.com

Multiple sclerosis (MS) is a chronic inflammatory demyelinating disorder of the central nervous system (CNS) more prevalent in young adults with a wide variety of geographic and ethnic distribution. Similar to other autoimmune diseases, this condition is more prevalent among females. Our objectives were to compare the basic demographic variations, variations in clinical manifestations and investigation findings between male and female MS patients in Sri Lanka.

Thirty one (female/F-18, male/M-13) patients with definite MS diagnosed by revised McDonald criteria 2010 from tertiary care centers of Sri Lanka were selected. An interviewer based questionnaire was used to collect data regarding clinical and investigation findings. Visual Evoked Potentials (VEP) and MRI findings were traced and recorded. Oligoclonal bands (OCB) were tested by isoelectric focusing. Data were analyzed using SPSS, independent sample t test and Fisher's exact test.

The female to male ratio was 1.38:1. The mean ages of onset were F=31.94±3.02 and M=33.23± 3.159 years. The attack frequency per year was F=1.306±0.1573 and M=1.577±0.1776. Mean EDSS were F=3.08±0.158 and M= 3.15±0.468. 83.3% females and 53.8% males had insidious onset of disease. Regarding clinical features, optic neuritis (F-49%, M-77%), sensory manifestations (F-44.4%, M-61.5%), motor (F-61.1%,M-69.2%) , cerebellar manifestations (F-33.3%,M-46.2%), autonomic (F-11.1%,M-7.7%) were observed. VEP positivity was F-66.7% and M-84.6%. Occurrence of relapsing remitting, secondary and primary progressive MS and clinically isolated syndrome was not statistically significant between genders. There was no significant difference of occurrence of MRI lesions in MS typical areas of CNS. The OCB positivity was F-61.1% and M-46.2%; and the difference was not statistically significant between sexes.

Multiple sclerosis is more prevalent among females in the population studied, although the sex ratio is lower than other western based studies. Males apparently have a higher tendency of having eye involvement suggested by both clinical features and VEP results and higher chance of having brainstem involvement suggested by clinical features. Both motor and sensory manifestations are slightly higher in males. Significant percentages from both sexes suffer from sexual dysfunctions. In conclusion, there are no significant differences in demographics, clinical, radiological and neurophysiological features between male and female MS patients in Sri Lanka.

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