Association between Multiple Sclerosis and Fuchs’ Heterochromic Iridocyclitis

Brichova M., Heissigerova J., Rihova E., Jenickova D., Klimova A., Mazna M., Svozilova P.

Department of Ophthalmology, First Faculty of Medicine, Charles University and General University Hospital in Prague, Czech Republic

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BACKGROUND

Fuchs’ heterochromic iridocyclitis (FHI) is a chronic, low-grade inflammation of the anterior uvea and vitreous. Major clinical features include little or no ciliary injection or pain, small to medium-sized (stellate) keratic precipitates involving the whole endothelial surface, diffuse iris stromal atrophy with or without heterochromia, vitreous opacities, and absence of posterior synechiae. Up to 10% of patients have bilateral involvement. Several infectious agents have been reported in association with FHI, such as Toxoplasma gondii, herpes simplex virus, cytomegalovirus and the most recently rubella virus. Multiple sclerosis (MS) is a demyelinating disease of the central nervous system. Ocular manifestations include optic neuritis, internuclear ophthalmoplegia, nystagmus, retinal vasculitis and intermediate uveitis.

The aim of our study was to report the association of multiple sclerosis with Fuchs’ heterochromic iridocyclitis.

PATIENTS AND METHODS

- A retrospective study
- Medical records of 2642 patients from our Centre for diagnosis and treatment of uveitis (in years 2003-2016) were analyzed focusing on MS and FHI.

RESULTS

- Uveitis associated with MS was diagnosed in 78 patients (3.0 %): anterior uveitis (6), intermediate uveitis (20), retinal vasculitis (21) and panuveitis (31).
- 218 out of 2642 patients had FHI. Bilateral form of FHI was diagnosed in 24 cases.
- The clinical examination revealed signs of FHI in the anterior segment in 8 out of 78 cases with MS.

Table:

<table>
<thead>
<tr>
<th>No/sex/ date of birth</th>
<th>Dg. of FHI (age)</th>
<th>Dg. of MS (age)</th>
<th>laterality</th>
<th>atypical features of FHI</th>
<th>reason for neurological examination</th>
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</thead>
<tbody>
<tr>
<td>1/M/1953</td>
<td>22</td>
<td>22</td>
<td>OD</td>
<td>none</td>
<td>optic neuritis</td>
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<tr>
<td>2/F/1981</td>
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<td>21</td>
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</tr>
<tr>
<td>3/F/1951</td>
<td>35</td>
<td>43</td>
<td>OS</td>
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<td>motor deficits</td>
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<td>4/F/1959</td>
<td>41</td>
<td>42</td>
<td>OS</td>
<td>vasculitis</td>
<td>screening of etiology of retinal vasculitis</td>
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<td>33</td>
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<td>28</td>
<td>28</td>
<td>OD</td>
<td>snow balls</td>
<td>screening of etiology of presumed intermediate uveitis</td>
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<td>23</td>
<td>OD</td>
<td>none</td>
<td>the diagnosis of MS preceded the diagnosis of FHI</td>
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</table>

CONCLUSIONS

- We revealed clinical signs of FHI in 10.3 % of cases of uveitis associated with MS.
- This association has not yet been reported.
- We recommend to ask patients with FHI about a history of sensitive, sensory and motor deficits, and to consider MRI scan of the brain.
- Our observation might induce more research in this field.

Figure: Patient No 4 - heterochromia of iris

Figure: Patient No 5 - vasculitis

Literature