

Reviewer's User Manual

Reviewing Steps:

The following email will be sent to the reviewer in order to decide whether to accept reviewing or not (**The reviewing answer should be sent till deadline**).



Dear Dr. Zahra Rostamizadeh,

We would be grateful to review Original Article(s) entitled, "**Astaxanthin Reduces Demyelination and Apoptosis of Oligodendrocytes in Rat Model of MS**" submitted to Cell Journal_(Yakhteh). Please indicate whether you are interested to review this manuscript or not.

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It is highly appreciated if you review till "**11 July 2019**".

The abstract of the manuscript is in the following section.

Title: Astaxanthin Reduces Demyelination and Apoptosis of Oligodendrocytes in Rat Model of MS

Objective

Astaxanthin is a carotenoid with anti-oxidative, anti-inflammatory and anti-apoptotic effects. It has also been reported that astaxanthin represents protective properties in neurodegenerative diseases and CNS oxidative stress. We aimed this study to evaluate protective effects of astaxanthin on demyelination and oligodendrocyte death in rat model of Multiple Sclerosis (MS).

Materials and Methods

Forty Wistar rats were randomly assigned into four experimental groups: Control group (with normal feeding), Cuprizone group received (0.6%) cuprizone daily for 4 weeks, Sham group received 0.6% cuprizone plus DMSO daily for 4 weeks, and Astaxanthin group received cuprizone (0.6%) and after 12 hours treated with astaxanthin (3mg/kg), daily for 4 weeks. Muscle strength evaluated by a behavioral basket test before and 4 weeks after surgery. Luxol Fast Blue staining was utilized for identification of myelinated neurons. Myelin Density was evaluated by image J software. The expression of A2B5 (oligodendrocyte precursor protein) and MOG (Myelin Oligodendrocyte Protein) assessed by IHC (Immunohistochemistry) and the expression of MBP (Myelin Binding Protein), MOG and PDGFR- α (Platelet-Derived Growth Factor alpha) genes tested by real-time PCR (RT-PCR) technique.

Results

Administration of astaxanthin reduced damage to oligodendrocytes and myelin sheath in rat model of MS. Basket behavioral test showed improvement of muscle strength in Astaxanthin group compared to Cuprizone and Sham groups. Besides, result of Real-Time PCR and IHC indicating the beneficial effects of astaxanthin in declining demyelination and oligodendrocytic death in rat model of MS.

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If you accept reviewing the manuscript (by click on **I accept to review this manuscript**), you will be received an automatic email.

Dear Dr. zahra rostamizadeh

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Manuscript Information

Home > Manuscript > Online Submission

(Cell J-6609) A novel haplotype at the macrophage migration inhibitory factor (MIF) locus is associated with endometriosis

Manuscript Information

Keywords
Endometriosis, Macrophage Migration Inhibitory Factor, Mutation screening, Haplotype, Single Nucleotide Polymorphism

Type of Manuscript
Original Article(s)

Correspond Authors
zahra rostamizadeh

Date Submitted
11 December 2018
1397/09/20

Current Status
Under final review

Manuscript files

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Abstract

Objective

Endometriosis is a common complex gynecological disorder and may result in infertility. Macrophage migration inhibitory factor (MIF) is a key pro-inflammatory cytokine that is secreted by accumulated macrophages in ectopic tissue of endometriosis and its overexpression has been reported in such tissues. However, hitherto, no study has been undertaken to test such association at the genetic level.

Materials and Methods

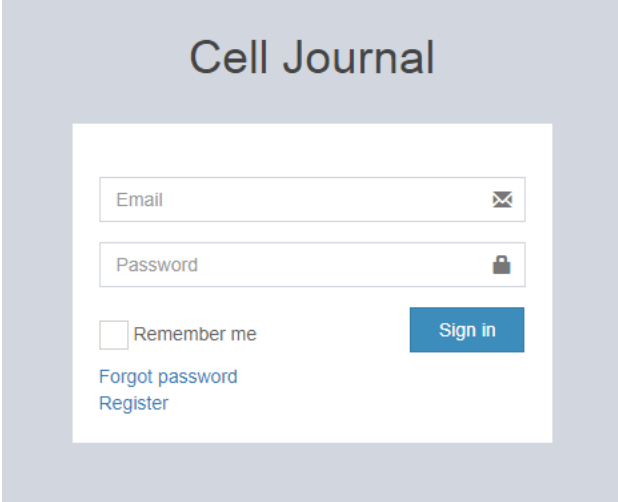
Seventy patients with confirmed endometriosis and an equal number of fertile women were recruited for this case-control genetic association study. The coding region of MIF was resequenced to detect variation of potential significance. Restriction fragment length polymorphism was used to type the -173G/C (rs755622) promoter SNP. Haplotype analyses (2N=140 in both groups) were then undertaken to assess the effect of genetic variation in a gene-wide manner.

Results

We detected no functional mutation but identified four known SNPs across the gene (rs2096525, rs182012324, rs33958703 and rs2070766). None of the typed SNPs, including the -173G/C promoter SNP, were associated with endometriosis. However, haplotype analysis showed a significant association between MIF and endometriosis (global-P = 0.033) where a single haplotype carrying only the minor allele at -173G/C was significantly over-represented in the patient group (OR=5.68, P=0.011).

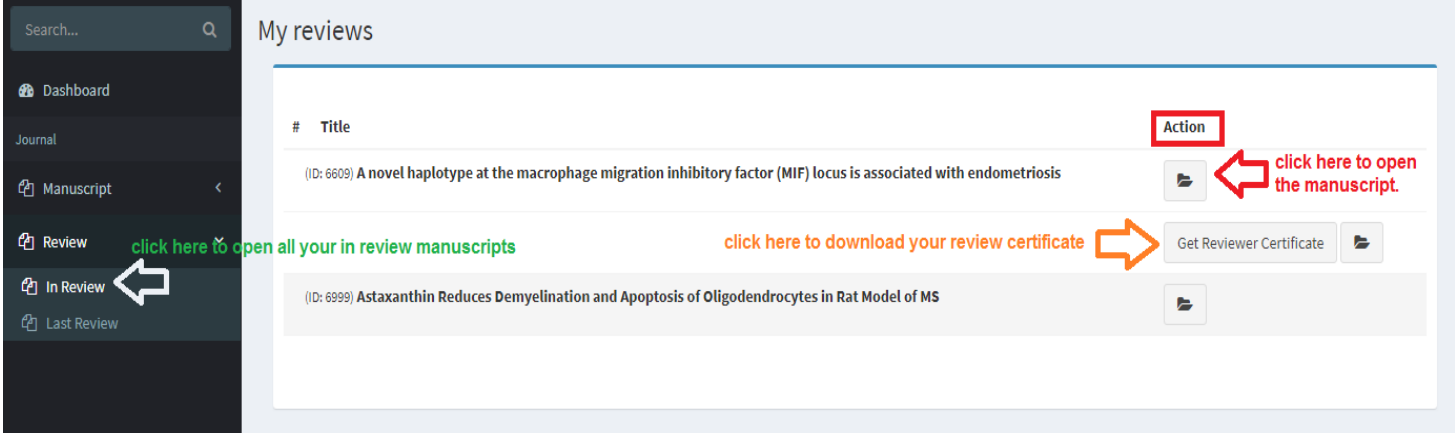
Conclusion

We report an association between a novel MIF haplotype and endometriosis. This association is consistent with expression data at both transcript and protein levels suggesting the -173C/G promoter SNP as a susceptibility factor. We also show that the right choice of analysis may circumvent the limitation of having a relatively low sample size in genetic association studies of complex diseases.



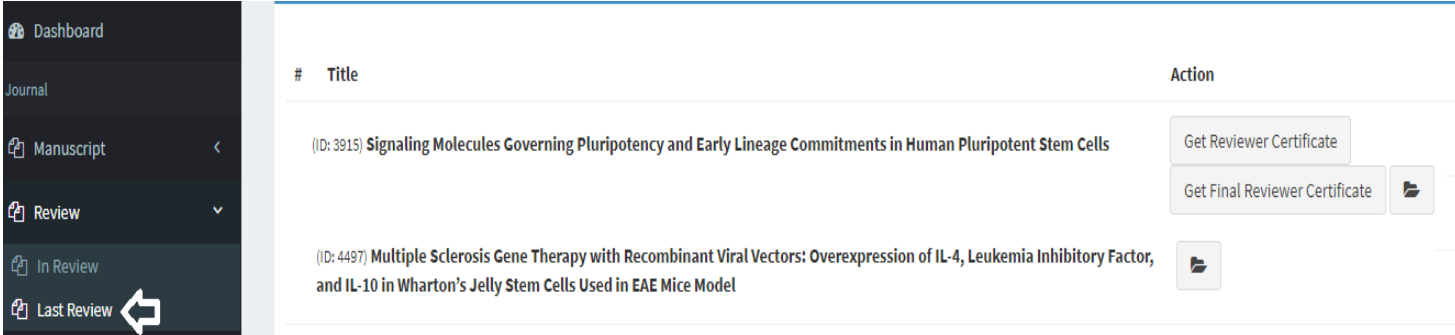
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Note: If the time of review is over please informing us to extend the time.



Dear Dr.Zahra Rostamizadeh,

We would inform you that the time of reviewing the manuscript entitled,"**A novel haplotype at the macrophage migration inhibitory factor (MIF) locus is associated with endometriosis**" is over.

We extended the time of reviewing till "**06 August 2019**".

Sincerely Yours,

Ahmad Hosseini, (Ph.D)

Editor-in-Chief

Cell J

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