

ORAL PRESENTATION

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Functional analysis of macrophages in Behçet's disease

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Introduction

Behçet's disease (BD) is an inflammatory disorder of unknown cause. The previous genome-wide association studies identified the associations between BD and several loci. Among them, *CCR1*, *MEFV*, and *IL10* encode genes highly expressed in macrophages, suggesting roles of macrophages in BD.

Objectives

To evaluate functional differences of macrophages between BD and healthy controls (HC).

Methods

We have differentiated peripheral monocytes into M1 or M2 macrophages under presence of either M-CSF or GM-CSF, cytokines involved in M2 or M1 macrophage polarizations, respectively. Real-time PCR, western blotting, ELISA, and flow cytometric analyses were performed to evaluate CD68, CD163, and heme oxygenase (HO)-1 expressions.

Results

Expression of CD163, and numbers of M1 and M2 macrophages from BD are found to be similar compared with HC. HO-1 expression in sera and macrophages tend to be lower in BD.

Conclusion

Lower HO-1 expression in BD suggests functional alteration of M2 macrophages in BD. Further experiments are required to elucidate mechanisms how M1 or M2 macrophages are involved in pathogenesis of BD.

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