

البحث الرابع

العنوان باللغة الانجليزية:

Assessment of long non-coding RNA (THRIL and TMEVPG1) among Behçets' disease patients

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ABSTRACT

Background: Behçet's disease (BD) is a chronic inflammatory disorder with multifactorial cause. Long non-coding RNAs (lncRNAs) perform an essential role in gene regulation, and there is ongoing research in their contribution to autoimmune diseases.

Aim of the work: To determine expression levels and diagnostic value of Theiler's Murine Encephalitis Virus Possible Gene1 (TMEVPG1) and TNF α and hnRNPL related immunoregulatory long non-coding RNA (THRIL) in BD, and to assess their role in the clinical characteristics of BD and disease activity.

Patients and methods: Study included 30 BD patients (12 females and 18 males) and 30 matched controls. Expression levels of TMEVPG1 and THRIL were detected by real-time polymerase chain reaction.

Results: The mean age of patients was 37.5 ± 11.3 years and disease duration was 7.7 ± 6 years. Expression levels of TMEVPG1 and THRIL were upregulated significantly in serum of patients compared with controls (set as 1). TMEVPG1 fold change = 3.0 with interquartile range (0.2–546.9) ($p < 0.0001$), while THRIL fold change = 3.6 with interquartile range (0.1–112.3) ($p < 0.0001$). There was significant correlation between TMEVPG1 and THRIL ($r = 0.48$, $p = 0.007$). TMEVPG1 did not correlate with the clinical characteristics of patients, while THRIL correlated only with central nervous system manifestations. At a cut-off point of 1.3 the sensitivity of TMEVPG1 was 76.7%, while THRIL at 1.08 was 73.3% and specificity was 100% for both. **Conclusion:** TMEVPG1 and THRIL were differentially expressed in the serum of BD patients and both had potential diagnostic value. Furthermore, an association between the expression level of THRIL and CNS symptoms was observed.