

## عنوان مقاله:

The correlation of BATH indices scores and purinergic receptors expression in macrophages from patients with ankylosing spondylitis

## محل انتشار:

بیستمین کنگره ملی و هشتمین کنگره بین‌المللی زیست‌شناسی ایران (سال: 1397)

تعداد صفحات اصل مقاله: 1

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## خلاصه مقاله:

Ankylosing spondylitis (AS) is the prototypic member of a group of inflammatory rheumatic diseases named spondyloarthritis (SpA). The disease is characterized by the inflammatory type of low back pain and progressive spinal stiffness. Macrophages play an important role in the AS auto-inflammatory responses and fibrocartilage destruction. Adenosine triphosphate (ATP) and other nucleotides, released from cells, regulate several immune and inflammatory responses in macrophages by interaction with P2X and P2Y purinergic receptors. In this study, we investigated the association of the clinical manifestation of AS patients with purinergic receptors mRNA expressions. Monocytes were isolated from 23 active AS patients and differentiated to macrophages by a macrophage-colony stimulating factor (M-CSF) for 7 days. The expression level of P2X (P2RX1-7) and P2Y (P2RY1,2,4,6,11,12,13,14) receptors mRNA was assessed by SYBR Green real-time PCR. We investigated the association of the clinical characteristics of AS patients including Bath Ankylosing Spondylitis Metrology Index (BASMI), Bath Ankylosing Spondylitis Functional Index (BASFI) and Bath Ankylosing Spondylitis Disease Activity Index (BASDI) with receptors mRNA expressions. The results showed an inverse correlation between P2RX4 and P2RX7 mRNA expression and BASDI score in AS patients ( $P<0.05$ ). It was also investigated that P2RY1 mRNA expression is positively correlated with patients BASMI score ( $P<0.01$ ). Our results suggested that AS patient's clinical manifestation is associated by purinergic receptors expression in macrophages. Therefore modulating the purinergic signaling receptors expression could be used as a therapeutic approach for AS treatment.

## کلمات کلیدی:

Purinergic receptor, Macrophage, Ankylosing spondylitis

## لینک ثابت مقاله در پایگاه سیویلیکا:

