

Abstract:

Aim

To investigate the effects of *Yishen Juanbi* (YJB) on rheumatoid arthritis (RA), using Freund's complete induced adjuvant arthritis (AA) in rat model.

Methods

AA was evaluated by measuring paw swelling and rats' secondary organ indexes. The level of serum tumor necrosis factor alpha (TNF- α), interleukin-1 β (IL-1 β) and interleukin-6 (IL-6) in rats were further measured by enzyme linked immunosorbent assay (ELISA). Also, total nitric oxide synthase (tNOS) and inducible nitric oxide synthase (iNOS) were assayed in serum using nitric oxide synthase kits by spectrophotometry. Antiapoptotic Bcl-2 was examined by Western blot.

Result

The administration of YJB significantly inhibited the swelling of the adjuvant-non-injected footpad of AA rats while without significant effect on rats' secondary organ indexes. YJB significantly decreased the production of serum TNF- α , IL-1 β , IL-6, iNOS and over-production of Bcl-2 expression in synovium.

Conclusion

YJB possesses anti-rheumatic activity by modulating the main anti-inflammatory factors while down-regulating antiapoptotic Bcl-2 in AA.

Key Words *Yishen Juanbi* (YJB) pill; iNOS; Bcl-2