

		TNF- α		IL-1 β	
		1	2	1	2
1.		266000	2.		266000
				TNF- α	IL-1 β
		II			
		IL-1 β	TNF- α	28d	
				P<0.05	P<0.01
IL-1 β	P<0.01			TNF- α	IL-1 β
				α	-1 β
R96	A	1673-4610	2015	05-0334-04	

Effect of Fufang Xuanju Capsule on Serum TNF- α and IL-1 β of Immunologic Arthritis rats

WANG Yuan¹, ZHANG Hui-juan¹, LIU Rong¹, ZHANG Bin²

Qingdao University, Qingdao 266000, China

Abstract Objective To observe the therapeutic effect of decoction of Fufang Xuanju capsule on immunologic arthritis and investigate the mechanism of this drug on the disease by determining the expression of serum TNF- α and IL-1 β in synovial tissues of joint. **Method** The experimental rat model of typeIIcollagen-induced arthritic (CIA) was established. The growth rate of body weight and the inhibitory effects on paw edema were observed, and serum TNF- α and IL-1 β levels were determined in experimental rats. **Result** In the 4-week of administration of Fufang Xuanju capsule,increased weight gain of the model rats was observed with lessened swelling of the joints ($P = 0.05$ or $P = 0.01$), which resulted in a lower serum TNF- α and IL-1 β in the model rats ($P = 0.01$). **Conclusion** Decoction of Fufang Xuanju capsule can treat the joint impairment of immunologic arthritis rats and the therapeutic mechanism may be relevant to reducing the content of TNF- α and IL-1 β .

Key words Fufang Xuanju capsule; immunologic arthritis; TNF- α ; IL-1 β

Rheumatoid Arthritis

RA

TNF- α IL-1 IL-6

“ ”

RA

[2-4]

[1]

RA

RA

RA

作者简介:王远, 主管药师, 研究方向:临床药理学, Tel:18561856955, E-mail:1030981109@qq.com

通讯作者:张斌, 中药学硕士, 研究方向:中药新制剂与新剂型, Tel:18661803280, E-mail:zhangbin0993@sina.com

				1mg/mL	
[5-7]			4°C		
					0.25mLCII
	[8]	II			4
collagen-induced arthritic rats (CIA)					
(Arthritisindex AI)					
			2.2 AI	[11-12] AI	0
TNF-α	IL-1β		1		
			2		
			3		
1			4		
1.1				18	
	20101004		AI	≥6	
MTX			2.3	[11]	SD 60
036140504	0.9%		(200±20)g		6
					“
1.2	TNF-α	IL-1β			”
			[8]		
II	CollagenII CII from bovine		10	CII	
nasal septum	Sigma				
	Freund's Incomplete		1000	750	500µg/kg
Adjuvant,FIA)	Sigma		4		
1.3	SD	60	6	MTX750µg/kg	
8					
		1			4
1.4	XL800				
BioTeK	AB1352S		8	14	20 28
	METT LE TOLEDO				28
	Thermo Scientific Heraeus				
2			2.4		
2.1	RA	[9-10]	2.4.1		28d
		CII			
0.1mol/mL					

2.4.2	ELISA			$P < 0.01$)	
	TNF- α	IL-1 β		$P < 0.05$)	
2.5			\pm		
	$\bar{x} \pm s$		SPSS17.0	$P > 0.05$	MTX
				RA	
	TNF- α	IL-1 β		3.3	TNF- α
		$P < 0.05$		IL-1 β	28
3					TNF- α
3.1	CII			IL-1 β	$P < 0.01$)
28d					
					TNF- α
		$P < 0.05$		IL-1 β	$P < 0.05$)
					TNF- α
				IL-1 β	MTX
	$P > 0.05$	1			(3) \ddot{A}
3.2	CII			4	
	2		8	RA	
		$P > 0.05$			
14					
			$P < 0.05$	RA	
		20d		TNF- α	IL-1 IL-6
				“	
	$P < 0.05$	4			

2		$\bar{X} \pm s$ n=10			
n	cm	cm			
		8d	14d	20d	28d
10	2.04±0.05	2.13±0.05	2.22±0.04	2.31±0.05	2.34±0.03
10	1.99±0.03	2.82±0.07	3.56±0.09 ¹	4.07±0.042	4.25±0.05 ²
10	2.00±0.03	2.87±0.05	3.33±0.06	3.58±0.02 ³	3.65±0.07 ⁴
9	2.07±0.07	2.91±0.06	3.41±0.04	3.65±0.05 ³	3.74±0.03 ⁴
9	2.05±0.05	2.88±0.04	3.49±0.07	3.77±0.05	3.91±0.06 ³
10	2.12±0.06	2.90±0.07	3.35±0.04	3.54±0.04 ³	3.70±0.05 ⁴

¹P<0.05,²P<0.01

³P<0.05 ⁴P<0.01

⁵P<0.05 ⁶P<0.01

3	TNF- α	IL-1 β	$\bar{X} \pm s$ n=10
n	$\mu\text{g/kg}$		TNF- α (pg/mL) IL-1 β (pg/mL)
10	--		25.37±3.12 2335 17.52 reW*

1000 μ g/kg, 1999,07(1):32.

MTX [10] , , , . IL-1 β TNF- α [J]. , 2005,09(30):708- 711.

MTX [11] , . TNF- α RANKL [J]. , 2008,05(27):324-327.

$P<0.05$ TNF- α IL-1 β [12] , . CIA IL-1 β IL-8 [J]. , 2014,06(21):622-623,634.

RA [13] . [M]. : , 2007:464.

[1] . IL-17 [14] , , . [J]. , 2011,01(32):7-9.

IL-10 [D]. , 2014. [14] . [D]. , 2014.

[2]Gerald W. Pathogenesis of rheum atoid arth ritis[J]. JClinical, 2004,3:26-31. [15] . [A].

[3] , , , . [M]. [J]. , 2010,05(23): 6-8.

IL-17 [16] , , . [C]. , 2010:2.

[4] , . [M]. : [16] , , . [J]. , 1998,04:49.

IL-10 [D]. , 2014 [17] . [J]. , 1996,03:169-170.

[5] , , , . [18] , . [M]. : , 2007:240-242.

III [J]. [9] , , , .II [J].