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宁泌泰胶囊联合盐酸莫西沙星治疗慢性前列腺炎患者的临床疗效及对血清 TNF- α 、IL-1 β 、M-CSF 的影响 *

刘林海¹ 汪 勇¹ 张 仰¹ 郭 钊¹ 王 俊²

(1 内江市第二人民医院 泌尿外科 四川 内江 641100; 2 重庆医科大学附属第二医院 泌尿外科 重庆 400013)

摘要 目的:探讨宁泌泰胶囊联合盐酸莫西沙星治疗慢性前列腺炎患者的临床疗效及对血清肿瘤坏死因子(TNF)- α 、白介素(IL)-1 β 、巨噬细胞集落刺激因子(M-CSF)水平的影响。**方法:**选择2014年8月至2016年8月我院接诊的110例慢性前列腺炎患者,通过随机数表法分为观察组(n=55)和对照组(n=55)。对照组采用盐酸莫西沙星治疗,观察组联合宁泌泰胶囊治疗,均连续治疗2周。比较两组治疗前后慢性前列腺炎症状评分(NIH-CPSI)、前列腺液白细胞计数、血清 TNF- α 、IL-1 β 、M-CSF 水平的变化及临床疗效。**结果:**治疗后,观察组临床疗效总有效率明显高于对照组($P<0.05$);两组 NIH-CPSI 评分、白细胞计数、血清 TNF- α 、IL-1 β 、M-CSF 均较治疗前显著降低($P<0.05$),观察组以上指标均明显低于对照组($P<0.05$)。**结论:**宁泌泰胶囊联合盐酸莫西沙星治疗慢性前列腺炎的临床效果显著,可有效缓解临床症状,安全性高,其机制可能和降低血清 TNF- α 、IL-1 β 、M-CSF 水平相关。

关键词:慢性前列腺炎;宁泌泰胶囊;盐酸莫西沙星;肿瘤坏死因子- α ;白介素-1 β ;巨噬细胞集落刺激因子

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Curative Efficacy of Ningmitai Capsule Combined with Moxifloxacin Hydrochloride in Treatment of Chronic Prostatitis and Its Effects on Serum Levels of TNF- α , IL-1 β and M-CSF*

LIU Lin-hai¹, WANG Yong¹, ZHANG Yang¹, GUO Chuan¹, WANG Jun²

(1 Department of Urology, Neijiang Second People's Hospital, Neijiang, Sichuan, 641100, China;

2 Department of Urology, Chongqing Zhongshan Hospital, Chongqing, 400013, China)

ABSTRACT Objective: To study the curative efficacy of ningmitai capsule combined with moxifloxacin hydrochloride in the treatment of chronic prostatitis and its effects on the serum tumor necrosis factor(TNF)- α , interleukin(IL)-1 β and macrophage colony stimulating factor (M-CSF) levels. **Methods:** 110 patients of chronic prostatitis who were treated from August 2014 to August 2016 in our hospital were selected and divided into the observation group (n=55) and the control group (n=55) according to the random number table. The control group was treated with moxifloxacin hydrochloride, while the observation group was treated by ningmitai capsule on the basis of control group. All the patients were treated for 2 weeks. The changes of chronic prostatitis symptom score (NIH-CPSI), white blood cell count, serum TNF- α , IL-1 β and M-CSF levels and the clinical efficacy were compared between the two groups before and after treatment. **Results:** After treatment, the total effective rate of observation group was significantly higher than that of the control group ($P<0.05$); the NIH-CPSI scores of pain, urination disorder and quality of life, white blood cell count, serum TNF- α , IL-1 β and M-CSF levels of both groups were significantly lower than those before treatment ($P<0.05$), which were significantly lower in the observation group than those of the control group($P<0.05$). **Conclusion:** Ningmitai capsule combined with moxifloxacin hydrochloride was effective for chronic prostatitis, it could effectively relieve the clinical symptoms with high safety, which might be related to the decrease of serum TNF- α , IL-1 β and M-CSF levels.

Key words: Chronic prostatitis; Ningmitai capsule; Moxifloxacin hydrochloride; Tumor necrosis factor- α ; Interleukin-1 β ; Macrophage colony stimulating factor

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前言

慢性前列腺炎是泌尿科男性生殖系统疾病中较为常见的疾病,在男科疾病中约占三分之一,在20~40岁人群中较为多

发,以排尿功能障碍为主要表现,其起病过程缓慢,且具有反复发作的特性^[1,2]。该病的发病机制临床上尚不完全明确,与多种原因所引发的炎症、免疫、神经内分泌紊乱等密切相关,使患者出现尿道刺激症状^[3]。临床上对此类患者常用的治疗主要以抗

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作者简介:刘林海(1975-),男,本科,研究方向:泌尿外科,副主任医师,电话:18081765211, E-mail: jialei6466@163.com

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菌为主,盐酸莫西沙星为常用药物,具有广谱的抗菌活性,且组织渗透力强、生物利用率高,但单独使用该药物效果并不尽如人意^[4]。宁泌泰胶囊具有抗炎、抗菌、抗纤维化的效果,可有效抑制革兰阳性菌、革兰阴性菌等,目前也逐渐用于治疗慢性前列腺炎患者^[5]。本研究采用宁泌泰胶囊联合盐酸莫西沙星治疗慢性前列腺炎患者,探讨其临床疗效及可能作用机制,现将结果报道如下。

1 资料与方法

1.1 一般资料

选择我院接诊的 110 例慢性前列腺炎患者。诊断标准:存在不同程度的尿急、尿频、尿痛、尿不尽等症状,甚至存在血尿;阴部、下腹部伴有疼痛感,并有失眠多梦、性功能衰退、血精等现象;前列腺液白细胞计数 ≥ 10 个/高倍视野(HP),卵磷脂小体消失或减少;前列腺细菌培养结果呈阳性。纳入标准^[6]:①符合慢性前列腺炎诊断标准;②年龄 ≤ 55 岁;③病程 1 周~半年;④对此次研究知情同意,且按时复诊。排除标准^[7]:①近期有抗生素或其余治疗慢性前列腺药物使用史;②尿道狭窄、前列腺增生、结石、泌尿系统肿瘤等对排尿功能存在影响的疾病;③伴有严重肝肾功能异常、心血管疾病、糖尿病;④对此次研究药物过敏。通过随机数表法将所有患者分为 2 组。观察组 55 例,年龄 20~53 岁,平均 (36.58 ± 4.83) 岁;病程 10 d~6 个月,平均 (3.24 ± 0.76) 月。对照组 55 例,年龄 21~54 岁,平均 (36.64 ± 4.79) 岁;病程 15 d~6 个月,平均 (3.29 ± 0.73) 月。两组一般资料比较差异均无统计学意义($P > 0.05$),具有可比性。

1.2 治疗方法

对照组:盐酸莫西沙星(规格 0.4 g/片,厂家:Bayer Schering Pharma AG,国药准字 J20100158),1 片/次,1 次/d。观察组:联合宁泌泰胶囊(规格,0.38 g/粒,厂家:贵阳新天药业股份

有限公司,国药准字 Z20025442),4 粒/次,3 次/d。两组均连续治疗 2 周,治疗期间叮嘱患者忌食辛辣、刺激类食物,规律排尿,不宜久坐。

1.3 观察指标

1.3.1 慢性前列腺症状评分 以美国国立卫生研究所制定的慢性前列腺炎症状评分(NIH-CPSI)评价,分为疼痛、排尿障碍、生活质量三部分,得分越高,提示病情越严重。

1.3.2 行常规前列腺液检查,记录白细胞计数

1.3.3 血清炎症因子水平 治疗前后抽取患者 3 mL 空腹静脉血,以放免法测定 TNF- α 、M-CSF,试剂盒购于北方免疫试剂研究所;IL-1 β 的检测使用酶联免疫吸附法,试剂盒购于北京生物制品研究所。操作均按说明书。

1.4 疗效评价标准

治愈:临床症状、体征完全消失,前列腺液白细胞计数 < 10 个/HP;显效:临床症状、体征明显缓解,NIH-CPSI 评分得到 60%~90%的降低,前列腺液白细胞计数得到 50%~89%的减少;有效:临床症状、体征有所改善,NIH-CPSI 评分得到 30%~60%的降低,前列腺液白细胞计数得到 25%~49%的减少;无效:疗程结束后,患者临床症状、体征均未明显改变,NIH-CPSI 评分、白细胞计数改善程度不明显。以治愈+显效+有效为总有效率。

1.5 统计学分析

采用 SPSS18.0 软件包进行数据分析,计量资料采用均数 $\pm$ 标准差($\bar{x} \pm s$)表示,两组间比较采用 t 检验,计数资料采用 χ^2 检验,以 $P < 0.05$ 表示差异具有统计学意义。

2 结果

2.1 两组临床疗效的比较

观察组临床疗效总有效率为 90.91%,明显高于对照组(74.54%, $P < 0.05$),见表 1。

表 1 两组临床疗效的比较(例,%)

Table 1 Comparison of the clinical efficacy between two groups (n, %)

Groups	Cure	Effective	Valid	Invalid	Total effective rate
Observation group(n=55)	12(21.82)	26(47.27)	12(21.82)	5(9.09)	50(90.91)*
Control group(n=55)	7(12.73)	19(34.54)	15(27.27)	14(25.45)	41(74.54)

Note: Compared with the control group, * $P < 0.05$.

2.2 两组治疗前后 NIH-CPSI 评分的比较

两组治疗前 NIH-CPSI 评分中疼痛、排尿障碍、生活质量得分比较差异均无统计学意义($P > 0.05$);和治疗前比较,两组治

疗后 NIH-CPSI 评分各项得分均显著降低($P < 0.05$),观察组疼痛、排尿障碍、生活质量得分均明显低于对照组($P < 0.05$),见表 2。

表 2 两组治疗前后 NIH-CPSI 评分的比较($\bar{x} \pm s$, 分)

Table 2 Comparison of the NIH-CPSI score between two groups before and after treatment($\bar{x} \pm s$, scores)

Groups		Pain	Urination disorders	Quality of life
Observation group(n=55)	Before treatment	14.85 $\pm$ 2.46	7.54 $\pm$ 1.23	9.85 $\pm$ 1.69
	After treatment	4.64 $\pm$ 1.03**	2.75 $\pm$ 0.41**	3.12 $\pm$ 0.43**
Control group(n=55)	Before treatment	14.52 $\pm$ 2.41	7.50 $\pm$ 1.25	9.89 $\pm$ 1.64
	After treatment	8.94 $\pm$ 1.54*	4.75 $\pm$ 0.83*	5.67 $\pm$ 0.83*

Note: Compared with the before treatment, * $P < 0.05$; Compared with the control group, ** $P < 0.05$.

2.3 两组治疗前后白细胞计数比较

两组治疗前白细胞计数比较差异无明显统计学意义 ($P >$

0.05);与治疗前比较,两组治疗后白细胞计数均明显降低($P < 0.05$),观察组白细胞计数明显低于对照组($P < 0.05$),见表 3。

表 3 两组治疗前后白细胞计数比较($\bar{x} \pm s$, 个/HP)

Table 3 Comparison of the white blood cell count between two groups before and after treatment($\bar{x} \pm s$, number/HP)

Groups		White blood cell count
Observation group(n=55)	Before treatment	32.58± 4.69
	After treatment	13.46± 2.10**
Control group(n=55)	Before treatment	32.54± 4.73
	After treatment	19.05± 2.48*

Note: Compared with the before treatment, *P<0.05; Compared with the control group, **P<0.05.

2.4 两组治疗前后血清 TNF- α 、IL-1 β 、M-CSF 水平的比较

治疗前, 两组血清 TNF- α 、IL-1 β 、M-CSF 水平比较差异无统计学意义(P>0.05); 治疗后, 两组血清 TNF- α 、IL-1 β 、M-CSF

水平均较治疗前明显降低 (P<0.05), 且观察组血清 TNF- α 、IL-1 β 、M-CSF 水平明显低于对照组(P<0.05), 见表4。

表 4 两组治疗前后血清 TNF- α 、IL-1 β 、M-CSF 水平的比较($\bar{x} \pm s$)

Table 4 Comparison of the serum TNF- α , IL-1 β and M-CSF levels between two groups before and after treatment($\bar{x} \pm s$)

Groups		TNF- α (ng/L)	IL-1 β (μ g/L)	M-CSF(μ g/L)
Observation group(n=55)	Before treatment	2.21± 0.37	3.56± 0.73	6.74± 1.32
	After treatment	1.02± 0.18**	1.13± 0.22**	1.85± 0.38**
Control group(n=55)	Before treatment	2.18± 0.39	3.53± 0.75	6.79± 1.31
	After treatment	1.54± 0.23*	2.05± 0.36*	3.46± 0.69*

Note: Compared with the before treatment, *P<0.05; Compared with the control group, **P<0.05.

2.5 两组不良反应发生情况的比较

观察组有恶心 2 例, 头晕 1 例; 对照组有胃肠道不适 1 例, 头晕、头痛 1 例; 症状较为轻微, 不对正常治疗产生影响。

提示联合用药可发挥更强的抗菌效果, 有助于促进临床症状的改善。此外, 在治疗过程中两组患者不良反应均较少, 且症状轻微无需特殊处理, 提示联合用药安全性较高, 不会增加不良反应发生率。

3 讨论

在 35 岁的男性中, 有超过 50% 的人群曾有前列腺症状出现, 其中慢性前列腺炎的患病率高于 85%。慢性前列腺炎临床症状主要以排尿疼痛或不适、神经衰弱、性功能障碍等为主^[8,9]。盐酸莫西沙星是新一代的氟喹诺酮类药物, 对革兰阳性菌、革兰阴性菌、厌氧菌等所产生的抗菌活性均较强, 且在体内 0.5 h 则可达到最高的药物浓度, 主要于肝脏、肾脏代谢, 不良反应少^[10]。但由于慢性前列腺炎的发病和多种因素之间存在密切关系, 且前列腺具有包膜屏障的作用, 会对药物的渗透、炎性分泌物的排除产生阻碍作用, 单独使用西药的治愈率较低^[11,12]。

宁泌泰胶囊主要成分有白茅根、四季红、三颗针、大风藤、仙鹤草、连翘、芙蓉叶等, 具有利尿通淋、清热解毒之效。在现代药理学中, 白茅根可改善血管通透性, 减少渗出, 缓解浮肿, 令梗阻得以解除, 可有效将瘀滞的前列腺液排除, 效果和理疗、前列腺按摩具有相似性; 连翘、四季红等可令膀胱肌、后尿道平滑肌松弛, 促进后尿道压力的降低, 从而达到预防尿液、精液的反流的目的, 缓解疼痛; 芙蓉叶也具有明显的抗炎效果, 且可对毛细血管通透性及肉芽组织的增生产生抑制作用^[13,14]。Heras-Cañas V 等^[15]报道证实宁泌泰胶囊对革兰式阴性杆菌、革兰式阳性杆菌具有明显的抑制作用, 所产生的抗菌、抗炎、抗纤维化效果显著。Huang BX 等^[16]在前列腺患者中应用宁泌泰胶囊后, 显示其具有令人满意的治疗效果。本研究结果显示联合宁泌泰胶囊治疗的患者在白细胞计数、NIH-CPSI 评分各结果中均优于单独使用盐酸莫西沙星的患者, 且联合用药治疗后总有效率高达 90.91%, 明显比单独用药的 74.54% 更具有优势,

TNF- α 作为内毒素所激活的淋巴细胞、巨噬细胞分泌的因子, 在炎症作用中发挥着重要的作用, 当机体受到感染时, 可对机体造成刺激, 产生大量的 TNF- α ; IL-1 β 主要由单核-巨噬细胞所产生, 在机体造血系统、内分泌系统、炎症反应、肿瘤发生过程中均有所参与^[17,18]。Castiglione R 等^[19]临床研究证实, 血清 TNF- α 、IL-1 β 参与着前列腺炎的发生、发展, 对其水平的监测由于了解病情变化, 在观察预后中具有积极意义。M-CSF 是种多肽造血生长因子, 主要是在炎症反应过程中的损伤的内皮细胞所释放, 其可促使造血红细胞分化成单核-巨噬细胞, 并令单核-巨噬的生长、繁殖、分化过程得以维持, 在炎症反应中是种敏感标志物。Iglesias-Gato D 等^[20]的研究显示慢性前列腺炎患者血清 M-CSF 水平较健康人群明显升高, 且和病情严重程度呈正相关。本研究结果显示: 联合用药的患者在治疗后血清血清 TNF- α 、IL-1 β 、M-CSF 水平比单独用药的患者更低, 可能是因为宁泌泰胶囊的有效成分具有促进巨噬细胞的吞噬能力, 可使机体的非特异性免疫功能、抗感染能力提高, 并具有明显的抗炎效果^[21], 因此血清 TNF- α 、IL-1 β 、M-CSF 水平下降程度更为显著。

综上所述, 宁泌泰胶囊联合盐酸莫西沙星治疗慢性前列腺炎的临床效果显著, 可有效缓解临床症状, 安全性高, 其机制可能和降低血清 TNF- α 、IL-1 β 、M-CSF 水平相关。

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