

doi: 10.13241/j.cnki.pmb.2018.24.020

非哺乳期乳腺炎的临床治疗探讨*

刁岩¹ 单昌友¹ 赵阳¹ 靳耀锋² 王子明³ 张淑群^{1Δ}

(1 西安交通大学第二附属医院 肿瘤科 陕西 西安 710004; 2 西安交通大学第二附属医院 病理科 陕西 西安 710004;

3 西安交通大学第二附属医院 泌尿外科 陕西 西安 710004)

摘要 目的:观察抗生素联合泼尼松双联药物冲击方法治疗非哺乳期急性乳腺炎的临床疗效。方法:选取本院乳腺外科2016年6月至2017年6月收治的105例非哺乳期急性乳腺炎患者作为观察对象,依照诊治顺序将其随机分为观察1组、观察2组以及对照组,每组35例患者。对照组给予口服左氧氟沙星,0.5 g/次,qd;观察1组在对照组的的治疗方法中加用醋酸泼尼松片强的松20 mg,qd;观察2组在对照组的的治疗方法中加用醋酸泼尼松片强的松40 mg,qd,三组均以14 d为一疗程。治疗1个疗程后,评价和比较各组治疗效果、血细胞数、好转时间、痊愈时、住院时间及不良反应的发生情况。结果:治疗后,观察1组、观察2组和对照组有效率分别为82.86%、97.14%和60.00%,观察2组有效率显著高于观察1组和对照组($P<0.05$)。三组患者治疗后白细胞,中性粒细胞,淋巴细胞均较治疗前明显下降($P<0.05$),且观察2组以上指标显著低于观察1组和对照组($P<0.05$)。观察2组的好转时间、痊愈时间及住院时间均明显短于观察1组和对照组($P<0.05$),而观察1组的好转时间、痊愈时间及住院时间明显短于对照组($P<0.05$)。观察1组出现1例轻微胃肠道反应,1例胸闷,不良反应总发生率为5.71%(2/35);观察2组出现1例轻微胃肠道情况,不良反应总发生率为2.86%(1/35);对照组2例患者发生胸闷,1例患者出现轻微胃肠道不适,1例患者出现眩晕,不良反应发生率为11.43%(4/35),三组不良反应发生率比较差异均无统计学意义($P>0.05$)。结论:口服抗生素联合泼尼松治疗非哺乳期急性乳腺炎患者能提高临床疗效,且加大泼尼松口服剂量可进一步提高临床有效率,控制炎症进展,缩短痊愈时间。

关键词: 非哺乳期;急性乳腺炎;泼尼松

中图分类号:R655.8 文献标识码:A 文章编号:1673-6273(2018)24-4695-04

Clinical Treatment of Acute Non Lactation Mastitis

DIAO Yan¹, SHAN Chang-you¹, ZHAO Yang¹, JIN Yao-feng², WANG Zi-ming³, ZHANG Shu-qun^{1Δ}

(1 Department of oncology, Second Affiliated Hospital of Xi'an Jiao Tong University, Xi'an, Shaanxi, 710004, China;

2 Department of Pathology, Second Affiliated Hospital of Xi'an Jiao Tong University, Xi'an, Shaanxi, 710004, China;

3 Department of Urology, Second Affiliated Hospital of Xi'an Jiao Tong University, Xi'an, Shaanxi, 710004, China)

ABSTRACT Objective: To investigate the clinical efficacy of antibiotics combined with prednisone double-drug impact therapy in the treatment of non-lactating acute mastitis. **Methods:** 105 cases of patients with non-lactating acute mastitis admitted in our hospital from June 2016 to June 2017 were selected and divided into the observation group 1, observation group 2 and control group according to the order of diagnosis and treatment, with 35 patients in each group. The control group received oral levofloxacin, 0.5 g/time, qd; the observation group 1 was given prednisone acetate prednisone 20 mg, qd on the basis of control group; the observation group 2 was treated by prednisone acetate prednisone 40 mg on the basis of control group, all three groups were treated for 14 days as a course of treatment. After one course of treatment, the effects of treatment, blood cell count, improvement time, recovery time, hospitalization time and incidence of adverse reactions in each group were evaluated and compared. **Results:** After treatment, the effective rate of observation group 1, observation group 2 and control group were 82.86%, 97.14% and 60.00%. The effective rate of observation group 2 was significantly higher than those of the observation group 1 and the control group ($P<0.05$). The white blood cells, neutrophils and lymphocytes of three groups were significantly lower than those before treatment ($P<0.05$), and the above indicators in observation group 2 were significantly lower than those of the observation group 1 and the control group ($P<0.05$). The improvement time, recovery time and hospitalization time of observation group 2 were significantly shorter than those of the observation group 1 and the control group ($P<0.05$), while the improvement time, recovery time and hospitalization time of the observation group 1 were significantly shorter than the control group ($P<0.05$). One case of mild gastrointestinal reaction and one case of chest tightness were observed in observation group 1. The total incidence of adverse reactions was 5.71%(2/35). One case of mild gastrointestinal tract was observed in observation group 2, and the total incidence of adverse reactions was 2.86 %.(1/35); 2 patients in the control group developed chest tightness, 1 patient had mild gastrointestinal discom-

* 基金项目:陕西省重点研发计划项目(2017SF-250)

作者简介:刁岩(1978-),男,硕士,主治医师,研究方向:肿瘤及乳腺疾病,电话:13991976776, E-mail: cuijunzhi577@163.com

Δ 通讯作者:张淑群(1971-),女,博士,主任医师,研究方向:肿瘤及乳腺疾病

(收稿日期:2018-07-30 接受日期:2018-08-24)

fort, 1 patient had dizziness, and the incidence of adverse reactions was 11.43%(4/35). The incidence of adverse reactions in the three groups showed no significant difference($P>0.05$). **Conclusion:** Oral antibiotics combined with prednisone can improve the clinical efficacy in the treatment of patients with non-lactating acute mastitis, and increasing the oral dose of prednisone can further improve the clinical efficiency, control the inflammatory progress, and shorten the recovery time.

Key words: Non lactation; Acute mastitis; Prednisone

Chinese Library Classification (CLC): R655.8 **Document code:** A

Article ID: 1673-6273(2018)24-4695-04

前言

乳腺炎是一种比较常见的女性疾病,分为哺乳期以及非哺乳期两种类型,哺乳期乳腺炎是急性感染。近年来,由于卫生条件的改变以及保健意识的增强,乳腺炎的发病率逐渐降低;但现在发现非哺乳期乳腺炎的发病比例每一年呈升高的走向。非哺乳期急性乳腺炎可出现于各个年龄段的女性中,以中青年女性多见^[1],导管周围乳腺炎以及肉芽肿性小叶性乳腺炎是其中两种最主要的类型。

手术是目前非哺乳期急性乳腺炎的主要治疗方式,但国际上研究学者都认为手术诊治并不是其首选治疗方式,手术范围比较小时,术后复发比例增加,手术范围大对该器官的外观有着不可忽视的影响^[2-4]。近年来,我院使用抗生素和泼尼松双联冲击方法治疗非哺乳期急性乳腺炎,疗效明显,安全性较高,患者依从性较好,现将结果报道如下。

1 资料与方法

1.1 一般资料

选择我院乳腺外科 2016 年 6 月到 2017 年 6 月诊治的 105 例非哺乳期乳腺炎患者作为实验对象,年龄 25~43 岁,中位年龄 28 岁。将研究对象依照诊治顺序随机划分为观察 1 组、观察 2 组以及对照组,每组各 35 例。观察 1 组中,年龄 25~41 岁,平均(28.5±6.8)岁,病程平均(25.3±9.2)d,导管周围乳腺炎 5 例,肉芽肿性乳腺炎 30 例;观察 2 组中,年龄 26~41 岁,平均(28.9±7.1)岁,病程平均(25.6±8.9)d,导管周围乳腺炎 3 例,肉芽肿性乳腺炎 32 例;对照组中,年龄 26~40 岁,平均 33±9 岁,病程平均(26.1±8.9)d。导管周围乳腺炎 4 例,肉芽肿性乳腺炎 31 例。三组患者在年龄、病程、乳腺炎分型经比较差异均无统计学意义($P>0.05$),具有可比性。

1.2 诊断标准

依照临床情况,使用著名的医学人员 Hart-ley 在杂志上关于急性该种类型的疾病诊断标准进行评定:① 非哺乳期妇女,乳房周围发生发红、肿胀、疼痛、皮温过大,身体炎症表现十分显著,并有发热以及寒战的情况。② 该部位局部肿块增加质柔软,出现波动情况,红、肿、热、痛十分的显著,不能按压,出现持续性搏动性的疼痛感觉。③ 血常规显示白细胞 (white blood cell, WBC) 和中性粒细胞 (Neutrophils, NE) 数目明显的增大,核象左移, C 反应蛋白 (C reaction protein, CRP) 水平升高。

纳入标准:① 满足以上诊断标准;② 首次诊断,患者知情同意愿意接受本实验诊治并签订同意书;③ 年龄 18~45 岁;④ 诊治前 30 天之内没有用激素类以及免疫抑制药物进行诊治;⑤ 没有结核、肿瘤、类风湿性关节炎、皮肤炎等疾病。排除准则:①

有治疗药物过敏史;② 有心、脑、肝、肾器官严重障碍;③ 有伴有高血压情况、骨质疏松、消化性溃疡等一些禁忌症;④ 不满足纳入标准。

1.3 治疗方法

一般诊治方法:全部纳入研究病人在诊治前都使用进行一样的健康宣教方式:包括休息方式、饮食方式、降低蛋白、胆固醇、辛辣油腻等食品,心情要保持愉悦和减少人为按压乳房等情况的出现。上述病人进行脓肿引流操作,并对齐进行彩超、X 线、肝功、肾功和其他入院一般检测,需要告知这次试验内容并且需要签署同意书。药物诊治:喹诺酮确定不过敏之后,对照组使用左氧氟沙星进行诊治(大小为 0.25 g×20 s)需要 0.5 g/次, qd(三餐后);观察 1 组:在对照组的治疗方法中加上醋酸泼尼松片强的松(规格型号:5 mg×100 s,浙江仙琚制药股份有限公司制作,国药准字 H33021207)20 mg 进行诊治, qd(早晚餐后);观察 2 组:醋酸泼尼松片强的松剂量加倍 40 mg, qd(早晚餐后)。三组均以两周作为一个诊治周期,都在 1 个治疗周期后测评两组诊治效果和不良反应的发生情况。

1.4 评定标准

1.4.1 临床疗效评价 依照《临床疾病诊断与疗效判断标准》^[5]中关于该种类型疾病诊治疗效测评标准:① 痊愈:体温达到正常水平,局部红肿热痛不在出现,压痛不在出现。② 有效:体温达到正常水平,该部位局部红肿热痛有所缓解,压痛能够减轻疼痛感。③ 无效:诊治前后体征没有任何的变化,局部红肿热痛和压痛没有任何变化,或者出现加重的情况。总有效率=(治愈例数+有效例数)/总例数×100%。

1.4.2 免疫指标测评 治疗前 1 d 以及治疗 1 个周期结束后 1 d 早上 8 点,空腹采集左肘静脉血 2 管其体积需要达到 3 mL,有一管使用在于血常规测定当中,一管使用在 T 淋巴细胞亚群检测,都使用肝素抗凝留以备用,上述两组都放在温度在 -50℃ 冰箱里面冷藏,收集完毕全部有病人诊治前后肘静脉血后进行批量测定。在测定过程中使用我院同 CA-620-Vet 血细胞分析仪器测定病人的白细胞和中性粒细胞数目, T 淋巴细胞亚群 (CD4⁺、CD8⁺) 检测使用同一台 Becton Dick-inson 企业生产的 FACS Calibur 流式细胞仪器检测。

1.4.3 检测时间 诊治前、诊治 1 个周期后,共 2 个时间段。若观察后期到 2 个诊治周期,由于临床痊愈而不需要进行诊治,则记录到达到实际结束。

1.4.4 安全性评定 观察并且记录诊治时期过敏性休克、皮疹、皮炎等不良反应的发生情况,患者肝、肾等器官功能和其他入院一般常规检测。

1.5 统计学方法

本组研究数据采用 SPSS18.0 进行分析,计量数据都使用

均数±标准差进行表示,满足正态分布的多组间比较采用单因素方差分析,进一步两组间比较采用SNK-q检验,计数数据使用 χ^2 检验,以 $P<0.05$ 为差具有统计学意义。

2 结果

2.1 三组临床疗效比较

观察1组有效率为82.86%,观察2组有效率为97.14%,对照组有效率为60.00%。观察2组有效率最高,显著高于观察1组和对照组($P<0.05$),观察1组有效率明显高于对照组($P<0.05$),见表1。

表1 三组患者疗效比较[例(%)]

Table 1 Comparison of the clinical curative effect among three groups[n(%)]

Group	n	Cure	Effective	Invalid	Clinical effective rate
Experiment group 1	35	12(34.29)	17(48.57)	6(17.14)	29(82.86)*
Experiment group 2	35	16(45.71)	18(51.43)	1(2.86)	34(97.14)*#
Control group	35	12(34.29)	9(34.29)	14(40.00)	21(60.00)

Note: Compared with the control group, * $P<0.05$; Compared with the experiment group 1, * $P<0.05$.

2.2 三组患者治疗前后血液学指标比较

三组患者治疗前白细胞、中性粒细胞、淋巴细胞数均高于正常值,三组之间比较差异无统计学意义。治疗后,3组上述指

标均较治疗前明显下降($P<0.05$),且观察2组以上指标明显低于观察1组合对照组($P<0.05$),见表2。

表2 三组患者治疗前后血液学指标比较($\bar{x}\pm s$)

Table 2 Comparison of the hematological indexes among three groups before and after treatment($\bar{x}\pm s$)

Group	n	Time	WBC ($10^9/L$)	Neutrophils ($10^9/L$)	Lymphocyte ($10^9/L$)
Experiment group 1	35	Before treatment	15.02± 3.16	10.29± 2.73	8.41± 1.63
		After treatment	9.72± 2.25*#	6.39± 1.72*#	4.03± 0.96*#
Experiment group 2	35	Before treatment	15.35± 3.43	10.42± 2.78	8.29± 1.56
		After treatment	7.53± 1.82*#	4.23± 1.49*#	2.43± 0.88*#
Control group	35	Before treatment	15.24± 3.35	10.48± 2.68	8.45± 1.66
		After treatment	13.35± 4.21*	8.78± 2.02*	6.17± 1.92*

Note: with experiment group 1, * $P<0.05$.

2.3 三组患者的痊愈时间与住院时间比较

观察2组的好转时间、痊愈时间及住院时间均明显短于观

察1组合对照组($P<0.05$),而观察1组好转时间、痊愈时间及住院时间均明显短于对照组($P<0.05$)见表3。

表3 三组患者好转时间、痊愈时间与住院时间比较($\bar{x}\pm s$)

Table 3 Comparison of the improvement time, recovery time and hospitalization time among three groups($\bar{x}\pm s$)

Group	n	Improvement time(d)	Recovery time(d)	Hospitalization time(d)
Experiment group 1	35	12.54± 2.89#	21.02± 3.16#	23.29± 3.23#
Experiment group 2	35	9.01± 1.67#	18.02± 2.06#	20.10± 2.71#
Control group	35	15.65± 3.01	26.04± 3.87	28.48± 3.18

Note: Compared with the control group, # $P<0.05$. Compared with experiment group 1, * $P<0.05$.

2.4 三组不良反应发生情况比较

观察1组出现1例轻微胃肠道反应,1例胸闷,不良反应总发生率为5.71%(2/35);观察2组出现1例轻微胃肠道情况,不良反应总发生率为2.86%(1/35);对照组2例患者发生胸闷,1例患者出现轻微胃肠道不适,1例患者出现眩晕,不良反应发生率为11.43%(4/35),三组不良反应发生率比较差异均无统计学意义($P>0.05$),如表4。

3 讨论

非哺乳期急性乳腺炎病情发展迅速,在短时间内可出现红

肿热痛等临床表现,并可导致器官化脓甚至出现窦道的情况,容易造成久治不愈的情况^[6]。非哺乳期急性乳腺炎在影像学中能够体现在不规则低回声以及混合回声肿块等表现^[7-9],在无显著炎症表现的时候和乳腺癌不能够进行有效的区分^[10],导管周围炎和肉芽肿性小叶性乳腺炎的情况以及诊断情况也有一定相似的情况,容易出现误诊,目前该种类型疾病并没有特别有效的特异性治疗方法,致使一些患者接受器官切除的方式进行治疗,给其身心带来了不可忽视的痛苦。

非哺乳期急性乳腺炎的病因及危险因素均不完全明确,主要与吸烟、饮酒、肥胖和生育等多种因素有关^[11]。研究表明导管

表 4 两三组不良反应情况比较[例(%)]

Table 4 Comparison of the incidence of adverse reactions among three groups[n(%)]

Group	n	Moderate gastrointestinal disorders	Sense of suppression in the chest	Vertigo	Adverse reaction Rate
Experiment group 1	35	1(2.86)	1(2.86)	0(0)	2(5.71)
Experiment group 2	35	1(2.86)	0(0)	0(0)	1(2.86)
Control group	35	2(5.71)	1(2.86)	1(2.86)	4(11.43)

周围炎和细菌感染有着不可分割的联系,需氧菌和厌氧菌和该种疾病均密切相关,但尚未发现和其有关的特异性细菌^[12]。现有研究对以上观点的探究已有表述,但对于细菌感染后的免疫炎症反应研究并不深入,该种疾病发生原因和免疫学机制了解的不多。相关研究发现^[13],和导管周围炎的病因学有关类型的疾病多出现在于生育后 5 年当中,和病人足月妊娠、哺乳以及生育相关原因有着一定的联系,同时肥胖、糖尿病等多个原因都被认定是该种类型的疾病的危险原因。随着临床研究对该种类型的疾病和细菌感染研究的不断深入发现^[14-18],细菌感染中棒状杆菌和肉芽肿性小叶性乳腺炎有良好关系。

相关研究表明 81%非哺乳期急性乳腺炎需要使用抗生素进行治疗^[19]。有研究对非哺乳期急性乳腺炎患者的脓液细菌进行培养,发现前三位致病菌从高到低依次为金黄色葡萄球菌、链球菌、表皮葡萄球菌,这三种都是革兰阳性菌,诊治该种类型的疾病不应该使用青霉素、红霉素、克林霉素进行诊治,需要使用阿莫西林、苯唑西林等比较安全和敏感一些抗生素药物^[20]。本研究结果显示口服抗生素联合泼尼松的非哺乳期急性乳腺炎患者有效率较口服左氧氟沙星治疗均显著升高,且加大泼尼松口服剂量后,其有效率进一步提高。患者治疗后,白细胞,中性粒细胞,淋巴细胞均明显下降,说明患者口服抗生素联合泼尼松能有效抑制炎症发展,同时观察到脓液较多的患者口服泼尼松疗效较差。此外泼尼松治疗效果差的患者再使用甲氨蝶呤,效果亦不佳。

综上所述,口服抗生素联合泼尼松治疗非哺乳期急性乳腺炎患者能提高临床疗效,且加大泼尼松口服剂量可进一步提高临床有效率,控制炎症进展,缩短痊愈时间。

参考文献(References)

- [1] 李斌,杨学伟.非哺乳期乳腺炎的临床特点分析[J].中国全科医学, 2017, 20(36): 4576-4580
Li Bin, Yang Xue-wei. Clinical characteristics of non lactation mastitis [J]. Chinese general practice, 2017, 20(36): 4576-4580
- [2] 张超杰.引言:非哺乳期乳腺炎的诊治进展:争议与共识[J].医学与哲学(B), 2013, 34(03): 7
Zhang Chao-jie. Introduction: progress in diagnosis and treatment of non lactation mastitis: controversy and consensus [J]. Medicine and Philosophy (B), 2013, 34(03): 7
- [3] 张智,邵淑芹,黄志伟.35 例非哺乳期乳腺炎的外科治疗[J].中国现代普通外科进展, 2017, 20(01): 60-62
Zhang Zhi, Shao Shu-qin, Huang Zhi-wei. 35 surgical treatment of non lactation mastitis[J]. Progress in modern Chinese general surgery, 2017, 20(01): 60-62
- [4] 樊旭,刘建国,岳萌,等.非哺乳期乳腺炎的临床诊治分析[J].中外医疗, 2016, 35(30): 62-64

Fan Xu, Liu Jian-guo, Yue Meng, et al. Clinical diagnosis and treatment of non lactation mastitis [J]. Chinese and foreign medicine, 2016, 35(30): 62-64

- [5] 王蔚文.临床疾病诊断与疗效判断标准[M].北京:科学技术文献出版社, 2010: 162
Wang Wei-wen. Clinical disease diagnosis and curative effect judgement standard [M]. Beijing: Science and Technology Literature Publishing House, 2010: 162
- [6] 肖蕾,张超杰.非哺乳期乳腺炎的现代研究进展[J].医学与哲学(B), 2013, 34(03): 8-13
Xiao Qiang, Zhang Chao-jie. Advances in modern research on non lactation mastitis [J]. Medicine and Philosophy (B), 2013, 34 (03): 8-13
- [7] 汤建英.乳腺超声对非哺乳期乳腺炎的诊断及鉴别诊断价值[J].世界最新医学信息文摘, 2017, 17(63): 119
Tang Jian-ying. Value of breast ultrasound in the diagnosis and differential diagnosis of non lactation mastitis[J]. World's latest medical abstracts, 2017, 17(63): 119
- [8] 毕卓芳,邱飞,叶茂清,等.非哺乳期乳腺炎与乳腺癌的超声影像学表现及鉴别价值[J].现代医院, 2017, 17(07): 1060-1062, 1066
Bi Zhuo-fang, Qiu Fei, Ye Mao-qing, et al. Ultrasonographic appearances and differential values of non lactation mastitis and breast cancer [J]. modern hospital, 2017, 17(07): 1060-1062, 1066
- [9] 彭娟.超声鉴别诊断非哺乳期乳腺炎和乳腺癌的价值[J].中国肿瘤外科杂志, 2017, 9(02): 123-124
Peng Juan. The value of ultrasound in the differential diagnosis of non lactation mastitis and breast cancer [J]. Chinese Journal of oncology surgery, 2017, 9(02): 123-124
- [10] 任伟.非哺乳期乳腺炎临床特征及危险因素探讨[J].临床医药文献电子杂志, 2017, 4(56): 10950-10951
Ren Wei. Clinical characteristics and risk factors of non lactation mastitis[J]. Clinical medical literature electronic journal, 2017, 4(56): 10950-10951
- [11] 刘璐.非哺乳期乳腺炎病因学及临床治疗初步探讨[D].山东大学, 2017
Liu Lu. Etiology and clinical treatment of non lactation mastitis [D]. Shandong University, 2017
- [12] 潘沁汶.非哺乳期乳腺炎临床特点及抗结核治疗中期观察[D].第三军医大学, 2016
Pan Qin-wen. Clinical characteristics of non lactation mastitis and interim observation on anti tuberculosis treatment [D]. Third Military Medical University, 2016
- [13] Marcia E, Bouton, Lakshmi Jayaram, et al. Management of idiopathic granulomatous mastitis with observation[J]. The American Journal of Surgery, 2015, 210(2): 258-262

(下转第 4668 页)

- Journal of Clinical Microbiology, 2015, 53(4): 1403-1405
- [16] Geleta D A, Megerssa Y C, Gudeta A N, et al. Xpert MTB/RIF assay for diagnosis of pulmonary tuberculosis in sputum specimens in remote health care facility[J]. BMC Microbiology, 2015, 15(1): 220
- [17] Fukushima K, Nakamura S, Inoue Y, et al. Utility of a Sputum Antigen Detection Test in Pneumococcal Pneumonia and Lower Respiratory Infectious Disease in Adults[J]. Internal Medicine, 2015, 54(22): 2843-2850
- [18] Omar S V, Peters R P, Ismail N A, et al. Laboratory evaluation of a specimen transport medium for downstream molecular processing of sputum samples to detect Mycobacterium tuberculosis [J]. Journal of Microbiological Methods, 2015, 117(33): 57-63
- [19] Moodley B, Tempia S, Frean J A. Comparison of quantitative real-time PCR and direct immunofluorescence for the detection of Pneumocystis jirovecii[J]. Plos One, 2017, 12(7): e0180589
- [20] Rockwood N, Wojno J, Ghebrekristos Y, et al. Utility of Second-Generation Line Probe Assay (Hain MTBDRplus) Directly on 2-Month Sputum Specimens for Monitoring Tuberculosis Treatment Response[J]. Journal of Clinical Microbiology, 2017, 55(5): 1508-1515
- [21] Lee Y J, Shin S, Roh E Y, et al. Acceptability of Sputum Specimens for Diagnosing Pulmonary Tuberculosis [J]. Journal of Korean Medical Science, 2015, 30(6): 733-736
- [22] Meaza A, Kebede A, Yaregal Z, et al. Evaluation of genotype MTBDRplus VER 2.0 line probe assay for the detection of MDR-TB in smear positive and negative sputum samples [J]. BMC Infectious Diseases, 2017, 17(1): 280
- [23] Yan L, Tang S, Yang Y, et al. A Large Cohort Study on the Clinical Value of Simultaneous Amplification and Testing for the Diagnosis of Pulmonary Tuberculosis[J]. Medicine, 2016, 95(4): e2597
- [24] Amukele T K, Street J, Carroll K, et al. Drone Transport of Microbes in Blood and Sputum Laboratory Specimens [J]. Journal of Clinical Microbiology, 2016, 54(10): 2622-2625
- [25] Ma X, Xu H, Shi L, et al. A multiplex PCR assay for the detection of five influenza viruses using a dual priming oligonucleotide system[J]. BMC Infectious Diseases, 2015, 15(1): 93
- [26] Jönsson B, Lönnermark E, Ridell M. Evaluation of the Cobas TaqMan MTB test for detection of Mycobacterium tuberculosis complex [J]. Infectious Diseases, 2015, 47(4): 231-236
- [27] Ullah I, Javaid A, Masud H, et al. Rapid detection of Mycobacterium tuberculosis and rifampicin resistance in extrapulmonary tuberculosis and sputum smear-negative pulmonary suspects using Xpert MTB/RIF [J]. Journal of Medical Microbiology, 2017, 66(4): 412-418
- [28] Reed J L, Walker Z J, Basu D, et al. Highly sensitive sequence specific qPCR detection of Mycobacterium tuberculosis, complex in respiratory specimens[J]. Tuberculosis, 2016, 101(16): 114-124
- [29] Camacho-Cardoso JL, Martínez-Rivera M, et al. Molecular detection of candida species from hospitalized patient's specimens[J]. Gaceta Medica De Mexico, 2017, 153(5): 581-589
- [30] Schunk M, Kebede S M, Wondafrash B, et al. Use of Occult Blood Detection Cards for Real-Time PCR-Based Diagnosis of Schistosoma Mansoni Infection[J]. Plos One, 2015, 10(9): e0137730

(上接第 4698 页)

- [14] Fereshte Sheybani, Mohammad Reza Sarvghad, Hamid Reza Naderi, et al. Treatment for and Clinical Characteristics of Granulomatous Mastitis[J]. Obstetrics & Gynecology, 2015, 126(4): 449-450
- [15] Francesco Annunziato, Chiara Romagnani, Sergio Romagnani. The three major types of innate and adaptive cell-mediated effector immunity [J]. The Journal of Allergy and Clinical Immunology, 2014, 11: 626-635
- [16] Lorenzo Cosmi, Laura Maggi, Veronica Santarlasci, et al. T helper cells plasticity in inflammation[J]. Cytometry, 2014, (1): 36-42
- [17] Tanu S, Pandey, Jennifer C. Mackinnon, Leah Bressler, et al. Idiopathic Granulomatous Mastitis--A Prospective Study of 49 Women and Treatment Outcomes with Steroid Therapy [J]. Breast J, 2014, 20(3): 258-266
- [18] Abhijit Chougule, Amanjit Bal, Ashim Das, et al. IgG4 related sclerosing mastitis: expanding the morphological spectrum of IgG4 related diseases [J]. Pathology, 2015, 47(1): 27-33
- [19] 祝琴,李远平,张英毅,等.浆细胞性乳腺炎和肉芽肿性乳腺炎的临床特征及治疗对策[J].中国实用医药, 2016, 11(32): 26-28
- Zhu Qin, Li Yuan-ping, Zhang Ying-yi, et al. Clinical characteristics and treatment of plasma cell mastitis and granulomatous mastitis[J]. Chinese Practical Medicine, 2016, 11(32): 26-28
- [20] 许锐,郭倩倩,杨乐平,等.非哺乳期乳腺炎患者血液中自身抗体和免疫指标的变化及其临床意义 [J]. 南方医科大学学报, 2016, 36(08): 1157-1159+1168
- Xu Rui, Guo Qian-qian, Yang Le-ping, et al. Changes in blood autoantibodies and immune indices in non lactating patients with mastitis and their clinical significance[J]. Journal of Southern Medical University, 2016, 36(08): 1157-1159+1168