

论著

肺孢子虫肺炎大鼠支气管肺泡灌洗液酶含量变化及大蒜素治疗对其影响

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摘要

【摘要】 目的 研究卡氏肺孢子虫肺炎(PCP)大鼠支气管肺泡灌洗液(BALF)酶含量变化以及大蒜素治疗对其影响。方法 用地塞米松连续肌肉注射Wistar大鼠, 诱导建立PCP大鼠模型。诱导第3、6、9周分别于后腿肌肉深部注射大蒜素治疗(10 mg/kg, 1次/d, 连续5 d)。同时设甲氧苄氨嘧啶(TMP)?酞磺胺甲基异噁唑(SMZ)治疗对照组(SMZ/TMP组)、PCP模型对照组和空白对照组。于最后1次治疗3 d后处死大鼠, 无菌收集BALF, 测定谷草转氨酶(AST)、谷丙转氨酶(ALT)、胆碱脂酶(CHE)、碱性磷酸酶(ALP)、乳酸脱氢酶(LDH)、肌酸激酶(CK)及其同工酶(CKMB)、 α ?羟丁酸脱氢酶(HBDH)、 α ?羟L?酞岩藻糖苷酶(AFU)、5'-核苷酸酶(5'NT)及腺苷脱氨酶(ADA)含量。结果 PCP模型组ALP含量 [(573.41 ± 350.63) U/L] 显著高于空白对照组 [(210.56 ± 114.41) U/L] ($q=4.682$, $P<0.01$)、大蒜素治疗组 [(392.07 ± 217.57) U/L] ($q=3.851$, $P<0.05$) 以及SMZ/TMP组 [(325.21 ± 180.65) U/L] ($q=4.380$, $P<0.01$)。CK、CKMB及5'NT含量, PCP模型对照组 [依次为948.94 ± 403.43、489.47 ± 254.46及(6.76 ± 3.11) U/L] 显著高于空白对照组 [426.22 ± 319.00、213.33 ± 144.54及(3.22 ± 1.20) U/L] ($q=4.696$, 3.784, 3.812, $P<0.05$)。AST、ALT、CHE、LDH、HBDH、AFU及ADA含量, 4组之间差异均无统计学意义($F=1.852$, 0.958, 2.470, 1.423, 1.178, 1.342, 0.611, $P>0.05$)。结论 PCP大鼠BALF中ALP、CK、CKMB及5'NT含量显著升高, 大蒜素治疗可使ALP含量显著降低。

关键词 [肺孢子虫肺炎](#) [支气管肺泡灌洗液](#) [酶](#) [大鼠](#)

分类号

Enzyme Change in Bronchoalveolar Lavage Fluid of Pneumocystis Pneumonia Rats and the Effect of Garlicin Treatment

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Abstract

【Abstract】 Objective To study the change of enzymes and effect of garlicin treatment on the change in bronchoalveolar lavage fluid(BALF) of rats with Pneumocystis carinii pneumonia (PCP). Methods Wistar rats were injected intramuscularly continuously with dexamethasone to establish the rat model of PCP. The experimental rats (group A) were injected intramuscularly with garlicin at a dose of 10 mg/(kg·d) for 5 days in the 3rd, 6th and 9th week respectively, and SMZ/TMP therapy group (B), PCP infected group (C) and normal group (D) were established as controls. Three days after the last treatment, the rats of all groups were killed and BALF was collected without contamination and enzymes AST, ALF, CHE, ALP, LDH, CK, CKMB, HBDH, AFU, 5'NT, ADA were examined. Results The ALP level in group C [(573.41 ± 350.63) U/L] was significantly higher than that in group D [(210.56 ± 114.41) U/L] ($q=4.682$, $P<0.01$), group A [(392.07 ± 217.57) U/L] ($q=3.851$, $P<0.05$), and group B [(325.21 ± 180.65) U/L] ($q=4.380$, $P<0.01$); the level of CK, CKMB and 5'NT in group C [948.94 ± 403.43, 489.47 ± 254.46 and (6.76 ± 3.11) U/L respectively] was higher than those in group D [426.22 ± 319.00, 213.33 ± 144.54 and (3.22 ± 1.20) U/L] ($q=4.696$, 3.784, 3.812, $P<0.05$); there was no significant difference in the level of AST, ALT, CHE, LDH, HBDH, AFU and ADA among the four groups($F=1.852$, 0.958, 2.470, 1.423, 1.178, 1.342, 0.611, $P>0.05$). Conclusions The level of ALP, CK, CKMB and 5'NT increases evidently in BALF of PCP infected rats, but the ALP level decreases distinctly after the garlicin treatment.

Key words [Pneumocystis carinii pneumonia](#) [Bronchoalveolar lavage fluid](#) [Enzyme](#) [Rat](#)

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