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LPS对宫颈癌细胞HMGB1主动释放及侵袭转移能力的影响

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Effect of LPS Stimulation on Active Release of HMGB1 in Cervical Cancer Cells and Ability of Invasion and Migration

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- 摘要
- 参考文献
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摘要

目的

探讨脂多糖（LPS）对宫颈癌细胞HMGB1主动释放及侵袭迁移能力的影响。

方法

高糖培养液培养三种细胞系：宫颈癌HeLa细胞系、宫颈癌C33A细胞系和正常宫颈上皮HUCEC细胞系，加LPS前后分别做Western blot检测HMGB1在宫颈癌细胞系（HeLa 和C33A）及正常宫颈上皮HUCEC细胞系细胞内外的表达情况。LPS刺激前后行小室细胞侵袭实验分析检测宫颈癌细胞株的侵袭迁移能力。

结果

100 ng/ml LPS刺激后，三种细胞内HMGB1总蛋白较刺激前均减少，而上清液HMGB1表达增加（$P<0.05$）；HeLa及C33A宫颈癌细胞侵袭迁移能力明显增强（$P<0.05$）。

结论

LPS能刺激宫颈癌细胞HMGB1主动释放从而增强其侵袭迁移能力。

关键词： 脂多糖 高迁移率族蛋白1 宫颈癌细胞 肿瘤侵袭

Abstract:

Objective

To investigate the effect of LPS stimulation on the active release of HMGB1 in Cervical cancer cells and the ability of invasion and migration.

Methods

Three cell lines were cultured in DMEM: HeLa cell lines，C33A cell lines and HUCEC cell lines （Normal cervical epithelial cells）.Western blot was used to detect the intracellular and extracellular protein expression changes of HMGB1 before and after LPS added to the three cell lines.Transwell assay was used to compare the ability of invasion and migration before and after LPS added.

Results

After stimulated with 100 ng/ml LPS,intracellular total protein HMGB1 all decreased in the three cells,while the expression of HMGB1 in the supernatant increased（$P<0.05$）;the ability of invasion and migration in HeLa and C33A cancer cells significantly enhanced （$P<0.05$）.

Conclusion

LPS could facilitate the active release of HMGB1 in cervical cancer cells, and therefore enhanced the ability of invasion and migration.

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Key words： Lipopolysaccharide(LPS)　High-mobility group box-1　Cervical cancer cells；Tumour cell invasion

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