米非司酮对异位子宫内膜腺上皮细胞中凋亡基因、侵袭基因表达的影响

《现代肿瘤医学》[ISSN:1672-4992/CN:61-1415/R] 期数: 2019年07期 页码: 1196-1199 栏目: 论著（妇科肿瘤） 出版日期: 2019-02-28

Title: The effects of mifepristone on apoptosis gene and invasion gene expression in endometrial glandular epithelial cells

作者: 姚霁航[1]; 张建宇[1]; 李 琳[1]; 王 涵[1]; 杨紫伟[2]; 郭科军[1]
1.中国医科大学附属第一医院妇科；2.检验科，辽宁 沈阳 110000

Author(s): Yao Jihang[1]; Zhang Jianyu[1]; Li Lin[1]; Wang Han[1]; Yang Ziwei[2]; Guo Kejun[1]
1.Department of Gynecology；2.Department of Clinical Laboratory，the First Hospital of China Medical University，Liaoning Shenyang 110000，China.

关键词: 米非司酮; 子宫内膜异位症; 腺上皮细胞; 凋亡基因; 侵袭基因

Keywords: mifepristone; endometriosis; glandular epithelial cells; apoptotic gene; invasive gene

分类号: R737.33

DOI: 10.3969/j.issn.1672-4992.2019.07.024

文献标识码: A

摘要: 目的：探讨米非司酮对异位子宫内膜腺上皮细胞中多种凋亡基因、侵袭基因表达的影响。方法：本研究为双盲随机对照研究，选取78例子宫内膜异位症患者作为研究对象，随机分为米非司酮组与对照组，各39例。米非司酮组采用米非司酮+手术治疗，对照组仅行手术治疗，术后采用酶联免疫法检测两组侵袭基因、凋亡基因的蛋白表达量。结果：米非司酮组细胞凋亡率高于对照组，差异有统计学意义（P<0.05）；异位子宫内膜腺上皮细胞中 β-catenin、GSK3β、uPA、NF-κBp65、OPN等侵袭基因的蛋白表达量均明显低于对照组，差异有统计学意义（P<0.05）；PTEN、Smac、Bax、Fas等促凋亡基因的蛋白表达量均高于对照组，差异有统计学意义（P<0.05）；Ki-67、c-IAP１、Bcl-2、Livin、Id-1等凋亡抑制基因的蛋白表达量均明显低于对照组，差异有统计学意义（P<0.05）。结论：米非司酮能够影响异位子宫内膜腺上皮细胞中多种侵袭、凋亡基因的表达，可下调侵袭基因的表达，抑制侵袭；上调促凋亡基因的表达以及下调凋亡抑制基因的表达，促进细胞凋亡。

Abstract: Objective：To study the effects of mifepristone on various apoptosis genes and invasion genes expression in endometrial glandular epithelial cells.Methods：In this study，a double-blind randomized controlled study was conducted，and 78 cases of patients with endometriosis were selected as the study subjects.Mifepristone group was treated with mifepristone + surgery，and the control group was treated only with surgery.After surgery，the enzyme linked immunoassay was used to detect the protein expression of two groups of invasive genes and apoptosis genes.Results：The apoptosis rate of mifepristone group was higher than that in the control group，and the difference was statistically significant (P<0.05).The protein expression levels of β-catenin，GSK3β，uPA，NF-κBp65 and OPN were significantly lower than those in the control group，and the differences were statistically significant (P<0.05).PTEN，Smac，Bax，Fas and other apoptotic genes had higher protein expression levels than the control group，and the difference was statistically significant (P<0.05).The protein expression levels of Ki-67，c-IAP1，Bcl-2，Livin and Id-1 were significantly lower than those of the control group，and the difference was statistically significant (P<0.05).Conclusion：Mifepristone can affect the expression of multiple invasive and apoptotic genes in endometrial glandular epithelial cells，and can down-regulate the expression of invasive genes and inhibit invasion，up-regulate proapoptotic gene expression and down-regulate apoptosis suppressor gene expression，promote apoptosis.

参考文献/REFERENCES

［1］Zhang Y，Yi MH.Mifepristone can induce apoptosis and necrosis of human endometrial cells［J］.Progress in Obstetrics and Gynecology，2016，25(12)：931-933.
[2]Valentijn AJ，Saretzki G，Tempest N，et al.Human endometrial epithelial telomerase is important for epithelial proliferation and glandular formation with potential implications，in endometriosis［J］.Hum

Reprod，2015，30(12)：2816-2828.
[3]Zhao H，Lv F，Liang G，et al.FGF19 promotes epithelial-mesenchymal transition in hepatocellular carcinoma cells by modulating the GSK3β/β-catenin signaling cascade via FGFR4 activation［J］.Oncotarget，2016，7(12)：13575-13586.
[4]Bai ZM，Lu YF，Yang M，et al.Intervention of OPN on NF-kappa Bp65 expression and its effect on cell invasiveness in endometriosis adenocarcinoma cells［J］.Chongqing Medicine，2016，45(9)：1163-1166.
[5]Yang M，Jiang CF，Ha CF.Effect of mifepristone on the expression of osteopontin and matrix metalloproteinase 9 in endometrial glandular epithelial cells of endometriosis［J］.Chinese General Medicine，2016，19(24)：2925-2929.
[6]Matsumoto T，Yamazaki M，Takahashi H，et al.Distinct β-catenin and PIK3CA mutation profiles in endometriosis-associated ovarian endometrioid and clear cell carcinomas［J］.Am J Clin Pathol，2015，144(3)：452-463.
[7]Ma YG，Shen AR，Li CY，et al.Effect of siRNA silencing COX-2 gene on VEGF and MMP-9 expression，COX-2 activity and apoptosis in eutopic and ectopic endometrial stromal cells of endometriosis［J］.Chinese Journal of Obstetrics and Gynecology，2015，50(10)：770-776.
[8]Eng J，Liu D，Qiu Z，et al.GSK3β overexpression indicates poor prognosis and its inhibition reduces cell proliferation and survival of non-small cell lung cancer cells［J］.PLoS One，2014，9(3)：e91231.
[9]Carotenuto M，Antonellis PD，Liguori L，et al.H-Prune through GSK-3β interaction sustains canonical WNT/β-catenin signaling enhancing cancer progression in NSCLC［J］.Oncotarget，2014，5(14)：5736-5749.
[10]Fung JN，Holdsworth-Carson SJ，Sapkota Y，et al.Functional evaluation of genetic variants associated with endometriosis near GREB1［J］.Hum Reprod，2015，30(5)：1263-1275.
[11]Zhu YP.Objective to investigate the role of p53，p21，MDM2 genes and apoptosis in the occurrence and development of endometriosis［J］.Chongqing Medicine，2017，46(A02)：292-293.
[12]Xu Y，He Y.Evaluation of inflammatory factor，invasion and apoptosis gene expression in rats with endometriosis after mifepristone intervention［J］.Journal of Hainan Medical College，2017，23(9)：1169-1171.
[13]Marcellin L，Santulli P，Gogusev J，et al.Endometriosis also affects the decidua in contact with the fetal membranes during pregnancy［J］.Hum Reprod，2015，30(2)：392-405.
[14]Xie W.Effect of mifepristone on the expression of invasive genes and apoptotic genes in ectopic endometrium of patients with endometriosis［J］.Journal of Hainan Medical College，2017，23(18)：2528-2530.
[15]Tang B，Li FR，Fu XL，et al.Effect of mifepristone on integrin and VEGF gene expression in endometrium of Wistar rats in window stage［J］.Experimental Animals and Comparative Medicine，2017，37(5)：399-404.
[16]Yi MH，Zhang Y，Jin ZJ.Effects of mifepristone on apoptosis and expression of angiogenic factors in human endometrium［J］.J Pract Obstet Gynecol，2016，32(7)：523-527.
[17]R□ty R，Franssila K，Joensuu H，et al.Ki-67 expression level，histological subtype，and the International Prognostic Index as outcome predictors in mantle cell lymphoma［J］.Eur J Haematol，2015，69(1)：11-20.
[18]Li WS，Bai ZM，Wang R，et al.Effect of NF-kappaBp65 on OPN and MMP-9 expression and cell invasiveness in endometriosis adenocarcinoma cells［J］.Progress in Obstetrics and Gynecology，2016，25(7)：518-522.

备注/Memo: -

更新日期/Last Update: 2019-02-28