DOI:10.16016/j.1000-5404.1995.01.019

The relationship of estrogen receptors and nuclear DNA content with the histological grading of breast cancer

Jiang Jun, Zhan Xinen, Liu Fengxuan, Huang Puhou, Gu Chengming (Department of General Surgery and Clinical Pathology, Southwest Hospital, Third Military Medical University, Chongqing, 630038)

Abstract The density of estrogen receptors (ER) and nuclear DNA content were determined in 45 cases of breast cancer. It was found that ER negative was found in 27 cases with an average DNA content of 45.11 and ER positive in 18 cases with an average DNA content of 29.76. In the cases with a histological diffferentiation grade Ⅰ, Ⅱ and Ⅲ, the ER positive rate and average DNA content were 60% and 25.21, 31.4% and 35.64 and 25% and 46.33 respectively. The increase of ER positive rate and the decrease of DNA content occurred along with the progress of the clinical stages of breast cacner but no similar relationship was found as the histological type of breast cancer was concerned. So, it can be concluded that the density of ER and DNA content were well correlated with the histological differentiation grading of the cancer. The biological features of breast cancer can be accurately assessed with the determination of ER density and DNA content, which ca provide a more reliable basis for the prognosis and the planning of an individualized postoperative management for the patient.

Key words breast neoplasms; receptors, estrogen; DNA content

严重烧伤后胃粘膜损害发生机制的实验研究*

An experimental study on the pathogenesis of gastric mucosal lesions following severe burn injury

张 超 杨宗城 黎 鳌 (第三军医大学西南医院烧伤研究所) 630038

应激性溃疡是烧伤、创伤、严重感染,休克等危重病症的常见并发症和主要致死原因之一。胃粘膜屏障功能损害是应激性溃疡发生的关键因素。有关严重烧伤后胃粘膜屏障功能损害的发病机理尚不十分清楚。本实验对烧伤后胃粘膜屏障功能的改变,以及缺血再灌流损伤、某些细胞因子和炎症介质、胃酸和胃泌素以及糖皮质激素受体变化在烧伤后胃粘膜损害中的作用进行了研究。主要结果如下:

(1)严重烧伤后胃粘膜结合粘液量和粘液内粘蛋白含量明显下降,胃液内溶解性粘脉显著增多,H^-逆弥散量和Na^-净流出量显著增多,胃粘膜组织内pH明显低于对照组,胃粘膜电位差显著下降。伤后胃粘膜出现一系列损伤性病理改变,表明烧伤早期胃粘膜屏障功能及胃粘膜均已受损。

(2)严重烧伤后胃粘膜血流量显著下降,胃粘膜组织中Na^--K^--ATP酶活性及ATP、ADP含量明显降低,而胃粘膜组织中AMP含量却显著升高,导致胃粘膜细胞能量负荷显著下降,能量代谢发生严重障碍。伤后血浆及胃粘膜组织MDA含量和组织蛋白D活性显著升高,而SOD活性显著降低。随着胃粘膜血流量的下降,胃酸排出量显著降低($r=0.92$, $P<0.01$),血清胃泌素含量显著升高。

(3)严重烧伤后血浆和胃粘膜组织中ET、TNF含量明显升高,血浆AⅡ和IL--8含量伤后也显著升高,这些细胞因子和炎症介质与胃粘膜结合粘液量改变呈显著负相关,而与H^-逆弥散量则呈显著正相关,表明它们参与了烧伤后胃粘膜损害的发病过程。烧伤后胃粘膜PGE_2含量明显降低,导致胃粘膜自身保护机制削弱。

(4)严重烧伤后血浆皮质醇水平明显升高,胃粘膜细胞胞浆中糖皮质激素受体(GCR)数目明显减少,与糖皮质激素结合的亲和力下降,使糖皮质激素与受体的结合显著减少。

综上所述,烧伤后早期胃粘膜屏障功能严重受损,其发生机理与烧伤后缺血再灌流损伤和失控性炎症反应密切相关。胃粘膜细胞能量代谢障碍可直接引起胃粘膜细胞损伤,氧自由基、ET、AⅡ、TNF、IL-8及组织蛋白酶D在伤后胃粘膜损伤中起重要作用,因粘膜屏障功能受损所致的H^-大量逆流是造成胃粘膜损伤的关键因素,伤后胃酸分泌及胃泌素增高对胃粘膜有加重损伤作用;伤后胃粘膜PGE_2减少和GCR的减少及与GC结合的亲和力降低,促进了胃粘膜损伤的发生。

关键词 溃疡;灼伤;胃粘膜/损伤;能量代谢;细胞因子;受体,糖皮质激素

中图法分类号 R644

* 国家自然科学基金资助项目,No.39290700

?1994-2016 China Academic Journal Electronic Publishing House. All rights reserved. http://www.cnki.net