结构中的一个重要信号蛋白，有研究显示，脂筏对于IGF-1R介导的信号转导具有调节作用[15]。由此我们推测，n-6和n-3 PUFA可能通过影响脂筏的结构差异性调节IGF-1R的功能及其表达，进而影响细胞内增殖信号的转导，对乳腺癌细胞的增殖产生不同影响，但其具体机制还待进一步的研究和探讨。

参考文献：

[1] Ip C. Controversial issues of dietary fat and experimental mammary carcinogenesis[J]. Prev Med, 1993, 22(5): 728-737.

[2] Terry P D, Rohan T E, Wolk A. Intakes of fish and marine fatty acids and the risks of cancers of the breast and prostate and of other hormone-related cancers: a review of the epidemiologic evidence[J]. Am J Clin Nutr, 2003, 77(3): 532-543.

[3] Wood T L, Yee D. Introduction: IGFs and IGFBPs in the normal mammary gland and in breast cancer[J]. J Mammary Gland Biol Neoplasia, 2000, 5(1): 1-5.

[4] 韦 娜，糜漫天. n-6/n-3多不饱和脂肪酸不同比例对乳腺癌细胞脂代谢调控基因的影响[J]. 第三军医大学学报, 2006, 28(7): 652-655.

[5] 韦 娜，糜漫天. n-6/n-3多不饱和脂肪酸不同比例对乳腺癌细胞缝隙连接细胞通讯的影响[J]. 第三军医大学学报, 2006, 28(4): 338-341.

[6] Chong Y M, Colston K, Jiang W G, *et al*. The relationship between the insulin-like growth factor-1 system and the oestrogen metabolising enzymes in breast cancer tissue and its adjacent non-cancerous tissue [J]. Breast Cancer Res Treat, 2006, 99(3): 275-288.

[7] Gago-Dominguez M, Yuan J M, Sun C L, *et al*. Opposing effects of dietary n-3 and n-6 fatty acids on mammary carcinogenesis: The Singapore Chinese Health Study[J]. Br J Cancer, 2003, 89(9): 1686-1692.

[8] Escrich E, Solanas M, Soler M, *et al*. Dietary polyunsaturated n-6 lipids effects on the growth and fatty acid composition of rat mammary tumors[J]. J Nutr Biochem, 2001, 12(9): 536-549.

[9] Larsson S C, Kumlin M, Ingelman-Sundberg M, *et al*. Dietary long-chain n-3 fatty acids for the prevention of cancer: a review of potential mechanisms[J]. Am J Clin Nutr, 2004, 79(6): 935-945.

[10] Jude S, Roger S, Martel E, *et al*. Dietary long-chain omega-3 fatty acids of marine origin: a comparison of their protective effects on coronary heart disease and breast cancers[J]. Prog Biophys Mol Biol, 2006, 90(1-3): 299-325.

[11] Chong Y M, Williams S L, Elkak A, *et al*. Insulin-like growth factor 1 (IGF-31) and its receptor mRNA levels in breast cancer and adjacent non-neoplastic tissue[J]. Anticancer Res, 2006, 26(1A): 167-173.

[12] Chernicky C L, Yi L, Tan H, *et al*. Treatment of human breast cancer cells with antisense RNA to the type Ⅰ insulin-like growth factor receptor inhibits cell growth, suppresses tumorigenesis, alters the metastatic potential, and prolongs survival *in vivo*[J]. Cancer Gene Ther, 2000, 7(3): 384-395.

[13] Schley P D, Brindley D N, Field C J. (n-3) PUFA alter raft lipid composition and decrease epidermal growth factor receptor levels in lipid rafts of human breast cancer cells[J]. J Nutr, 2007, 137(3): 548-553.

[14] Fan Y Y, McMurray D N, Ly L H, *et al*. Dietary (n-3) polyunsaturated fatty acids remodel mouse T-cell lipid rafts [J]. J Nutr, 2003, 133(6): 1913-1920.

[15] Remacle-Bonnet M, Garrouste F, Baillat G, *et al*. Membrane rafts segregate pro-from anti-apoptotic insulin-like growth factor-Ⅰ receptor signaling in colon carcinoma cells stimulated by members of the tumor necrosis factor superfamily[J]. Am J Pathol, 2005, 167(3): 761-773.

（编辑 薛国文）

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