The impact of the Chinese medicine ShenLingLan on triple negative breast cancer, the metabolic and signalling pathways and clinical implications

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Abstract

Background. Triple negative breast cancer (TNBC) is challenging both in the choice of therapies and clinical outcomes. In the present study, we investigated the potential property of a Chinese medicine formula, ShenLingLan, shown to have benefit to patients with cancer and able to influence the biological behavior of cancer cells, in the treatment of triple negative breast cancer (TNBC) and TNBC cells (ZR751). The objective of this study was to study the metabolic and signalling pathways of TNBC and TNBC cells (ZR751) cells, and their targets.

Methods

Results

Discussion

Summary and conclusions

1. TNBCs are more sensitive to SLDM than non-TNBC cells, in cell matrix adhesion and migration.
2. SLDM is able to markedly reduce the glycolytic and oxygen consumption in TNBC cells.
3. Those inhibitory effects were achieved at non-toxic levels of SLDM;
4. SLDM may have a profound effect on TNBC, due to its biological impact on TNBC cells and the abovementioned influences on insulin receptors in this cancer type.

References