

Gc-protein-derived Macrophage Activating Factor (GcMAF) induces ERBB2 shift in human breast cancer

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HER2/Neu/ERBB2 is a receptor tyrosine kinase overexpressed in a high percentage of human breast cancers. Gc-protein-derived Macrophage Activating Factor (GcMAF) is a powerful stimulant of the immune system endowed with intrinsic anticancer properties (Pacini et al., 2012). We recently demonstrated that molecular complexes of oleic acid (OA) and GcMAF (OA-GcMAF) show significant therapeutic activity in a variety of tumours (Ward et al., 2014). Here we demonstrate that OA-GcMAF eradicates ERBB2 expression in human breast cancer. A biopsy taken before OA-GcMAF treatment showed strong positivity to ERBB2. The patient was then treated with OA-GcMAF administered through subcutaneous injections and with food naturally rich in OA-GcMAF for 3 weeks prior to mastectomy. The subsequent surgery specimen was negative for ERBB2. These results lead to hypothesize: 1. OA-GcMAF completely reversed the neoplastic phenotype. 2. OA-GcMAF induced the apoptosis of all ERBB2-positive cancer cells.

References

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Keywords

Breast cancer, GcMAF, immunotherapy, oncogene, human EGF receptor.