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CORRECTION
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Corrigendum: Autophagy Blockade by Ai Du Qing Formula Promotes Chemosensitivity of Breast Cancer Stem Cells Via GRP78/β-Catenin/ABCG2 Axis

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A Corrigendum on

Autophagy Blockade by Ai Du Qing Formula Promotes Chemosensitivity of Breast Cancer Stem Cells Via GRP78/β-Catenin/ABCG2 Axis

by Liao, M. M., Wang, C. W., Yang, B. W., Huang, D. P., Zheng, Y. F., Wang, S. Q., Wang, X., Zhang, J. P., Tang, C. B., Xu, Z., He, Y., Huang, R. L., Zhang, F. X., Wang, Z. Y., and Wang, N. (2021). Front. Pharmacol. 12: 659297. doi: 10.3389/fphar.2021.659297

In the original article, there were mistakes in **Figures 1**, **2**, **5** as published. **Figure 1E** inadvertently contained duplicate images. In **Figures 2B,C**, certain spheres were unintentionally misplaced during picture combination. In **Figure 5D**, the ×200 sphere image of shCtrl was also unintentionally misplaced. The authors provided the journal with the original data files. The corrected figures, produced from the original data, appear below.

To better show a whole CSC sphere transfected with the mRFP-GFP-LC3 reporter, representative confocal images were selected under a low magnification (scale bar: 200 μm) in the original article. Therefore, a brief description should be added to the end of **Immunofluorescence Analysis**, indicating that "The mammospheres were dissociated into single-cell suspension for quantification of autophagosome/autolysosome under a higher magnification".

The authors apologize for this error and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

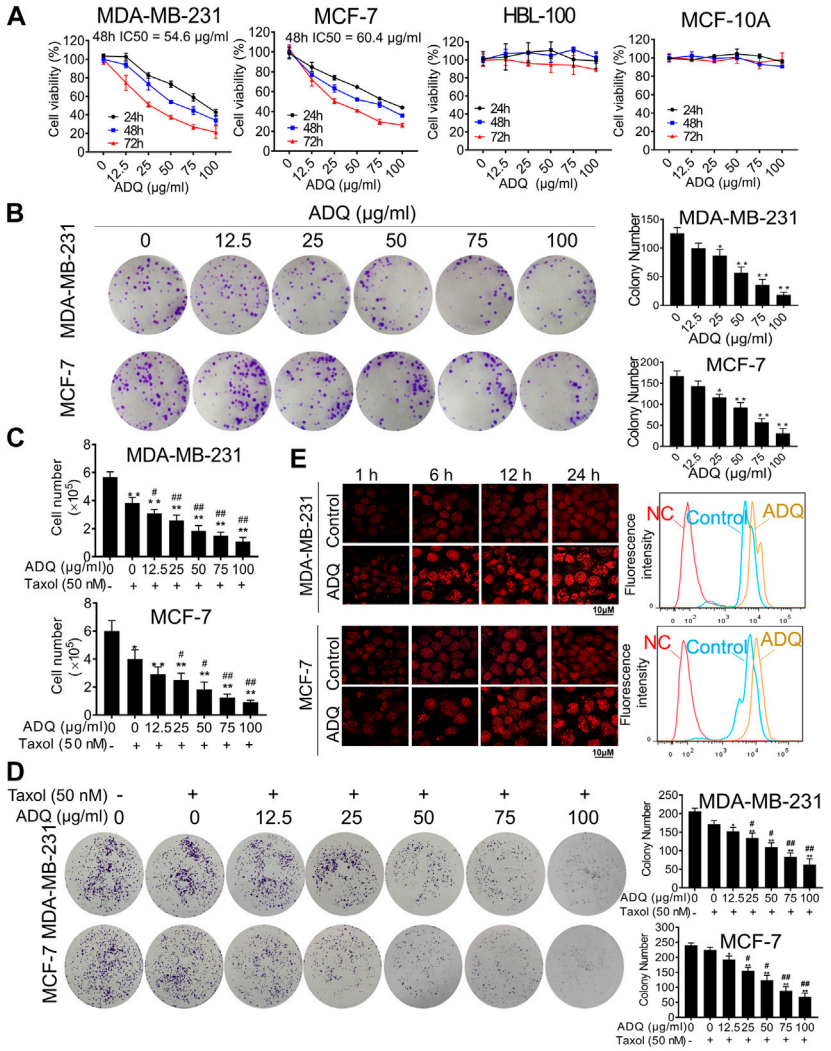

FIGURE 1 | Ai Du Qing formula (ADQ) exerts anti-cancer and chemosensitivity effects on breast cancer cells. **(A)** CCK8 assay demonstrated that ADQ (0–100 μg/ml) exerted an inhibitory effect on breast cancer cells MDA-MB-231 and MCF-7, while posing little cytotoxicity on non-malignant mammary epithelial cell lines HBL-100 and MCF-10A. **(B)** ADQ exerted an obvious inhibition on the colony formation abilities of breast cancer cell lines MDA-MB-231 and MCF-7 at different concentrations (0–100 μg/ml). **(C)** Cell counting assay showed a synergistic effect of ADQ (0–100 μg/ml) with 50 nM taxol in MDA-MB-231 and MCF-7 cells. **(D)** Colony formation assay demonstrated synergistic effects of ADQ with taxol to suppress the colony size and number of MDA-MB-231 and MCF-7 cells. **(E)** Drug efflux assay demonstrated that ADQ (50 μg/ml) could increase the intake of epirubicin (10 μg/ml) in MDA-MB-231 and MCF-7 cells. All values represent the means ± SD ($n = 3$, $^{*}p < 0.05$, $^{**}p < 0.01$ vs. Control group; $\#p < 0.05$, $\#\#p < 0.01$ vs. Taxol group).

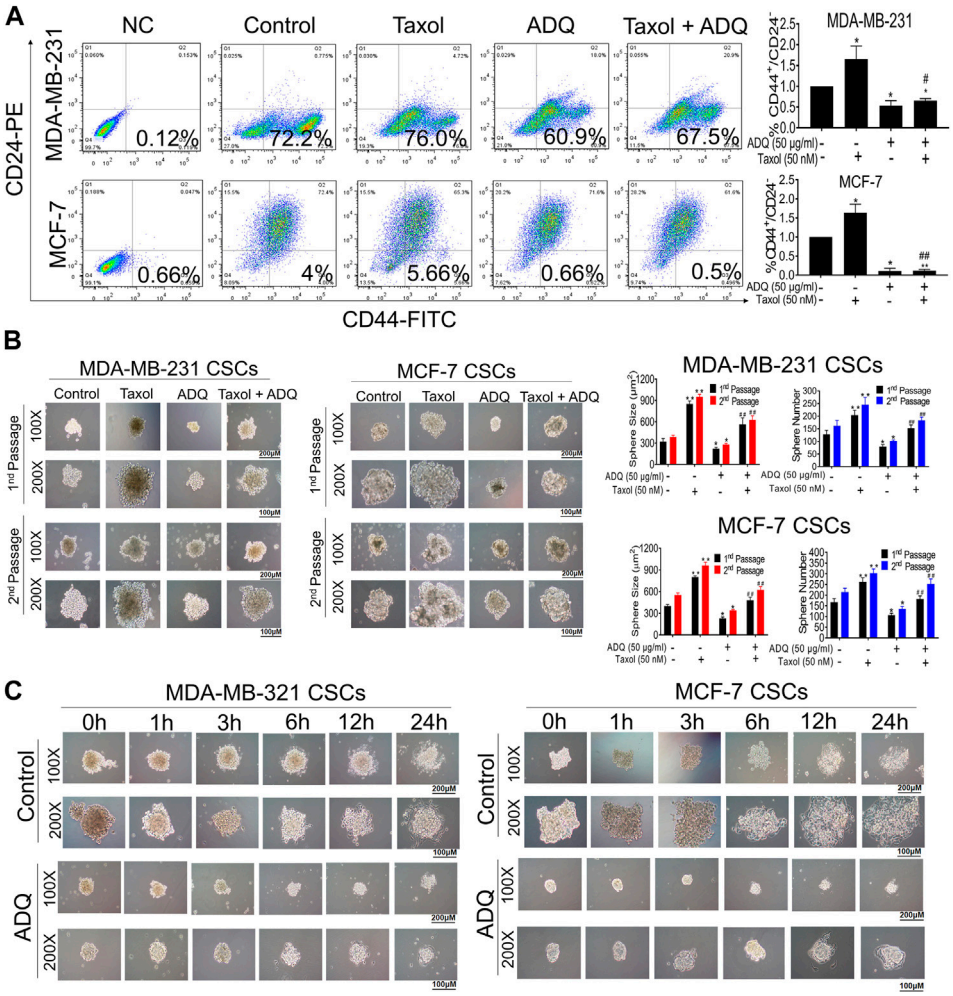

FIGURE 2 | ADQ attenuates the proliferation, self-renewal and differentiation of breast CSCs. **(A)** ADQ administration for 48 h could remarkably reduce the proportions of $CD44^{+}CD24^{-/low}$ subsets in both the MDA-MB-231 cells and MCF-7 cells. **(B)** 50 μg/ml ADQ with or without 50 nM taxol markedly limited the numbers and sizes of the primary and secondary mammospheres. **(C)** ADQ treatment dramatically attenuated the differentiation ability of breast CSCs. All values represent the means ± SD (n = 3, $^{*}p < 0.05$, $^{**}p < 0.01$ vs. Control group; $\#p < 0.05$, $\#\#p < 0.01$ vs. Taxol group).

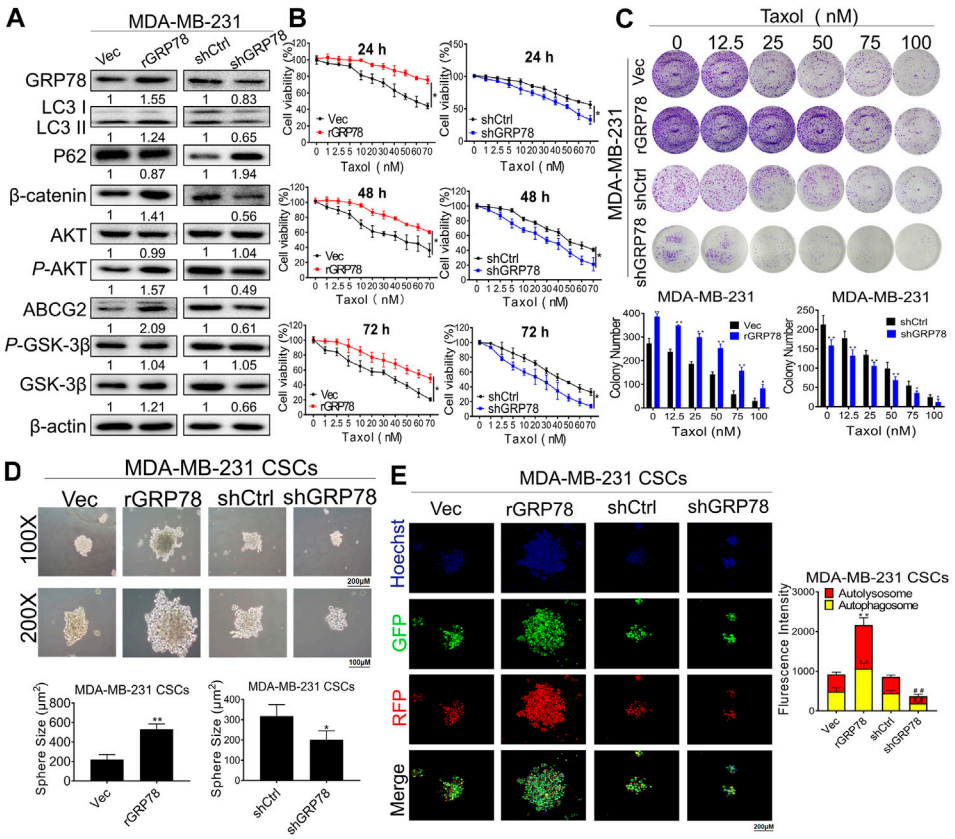

FIGURE 5 | GRP78 decreases breast cancer chemosensitivity possibly via autophagy induction of breast CSCs. **(A)** Western blotting verified the expressions of GRP78, LC3, P62, β-catenin, ABCG2, GSK-3β, P-GSK-3β, AKT and P-AKT in MDA-MB-231 cells before or after the indicated transfection. **(B)** CCK8 assay detected the cell proliferation in GRP78^{high} and GRP78^{low} MDA-MB-231 cells with or without taxol administration. All values represent the means ± SD ($n = 3$, $^{*}p < 0.05$, $^{**}p < 0.01$ vs. Vec group; $\#p < 0.05$, $\#\#p < 0.01$ vs. shCtrl group). **(C)** Colony formation assay was performed to evaluate the long-term inhibitory effects of ADQ on GRP78^{high} and GRP78^{low} MDA-MB-231 cells. All values represent the means ± SD ($n = 3$, $^{*}p < 0.05$, $^{**}p < 0.01$ vs. Control group). **(D)** Sphere-forming assay in MDA-MB-231 CSCs before or after the indicated transfection. All values represent the means ± SD ($n = 3$, $^{*}p < 0.05$, $^{**}p < 0.01$ vs. Control group). **(E)** Fluorescence photographs of autophagic flux transfected with an LC3-GFP-mRFP reporter in GRP78^{high} and GRP78^{low} MDA-MB-231 cells. All values represent the means ± SD ($n = 3$, $^{*}p < 0.05$, $^{**}p < 0.01$ vs Vec group; $\#p < 0.05$, $\#\#p < 0.01$ vs. shCtrl group).