New Understanding of Breast Cancer Metastasis

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The most deadly process in cancer is metastasis, when tumor cells spread to distant organs. Key to preventing metastasis is understanding how these cells are able to move through the body. **Carey K. Anders, MD (Damon Runyon Clinical Investigator ’12–’15)** of the University of North Carolina Lineberger Comprehensive Cancer Center, Chapel Hill, is shedding light on this process using genetic “snapshots” of both the primary tumor and the tumor after it has spread.

She and her colleagues found that the cancer typically did not spread outside the breast as a single cell, but most likely broke away as a collection of cells. The results suggest that metastatic cancers are most often made up of cells with different genetic drivers. These diverse mutations in the original cancer are also potentially responsible for the metastatic process, and the cancer may not need to acquire new traits to be able to spread.

This study indicates that targeting the primary tumor with multiple drugs may be important in containing the cancer. The report was published in the Journal of Clinical Investigation. Read more about the study’s findings here.

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