

Essay on the given case study

[Sociology](#), [Poverty](#)



1. List of information that is the same

- a. The human epidermal growth factor receptor 2 (HER2) is over expressed in approximately 25%-30% cases of breast cancer.
- b. HER2 is a member of a trans-membrane growth factor receptor family with tyrosine kinase activity.
- c. Women with breast cancer and over-expressed HER2 have aggressive form of disease with considerable shortened overall survival and disease free survival.
- d. Trastuzumab, a recombinant humanized monoclonal antibody reduces growth of HER2. The monoclonal antibodies inhibit growth of HER2, thereby inhibiting tumor growth.
- e. Trastuzumab confers longer disease-free and overall survival when used alongside chemotherapy.
- f. Amplification of HER2 has a direct role in the pathogenesis of breast cancers

2. List of information that is different

- a. Side effects of Trastuzumab, i. e. synergistic effects, ionizing radiation and addictive effects.
- b. Cure of metastatic disease breast cancer.
- c. Disease progression and incidence of adverse effects when trastuzumab is used alongside chemotherapy.
- d. The safety profile of human epidermal growth factor receptor 2 in metastatic breast cancer.
- e. Response of women with metastatic disease breast cancer when

trastuzumab is used alongside chemotherapy.

g. Correlation of HER2 with poor clinical outcome in women.

In approximately 20%-30% of breast cancer cases, human epidermal growth factor receptor 2 (HER2) which is encoded by PROTO-ONCOGENES, is amplified. Over-expressed HER2 is linked to poor prognosis. As well, it is associated with poor clinical outcomes in women with node-negative and node-positive disease. Over expressed HER2 aggravates breast cancer and thus considerably shorten overall survival and disease free survival.

Trastuzumab, recombinant humanized monoclonal antibodies reduce the growth of HER2. The growth of HER2 is inhibited by monoclonal antibody and thus consequently inhibiting tumor growth. Even though Trastuzumab has synergistic effects, ionizing radiation and addictive effects when used alongside carboplatin, cyclophosphamide, methotrexate respectively, it presents longer disease-free and overall survival when used alongside chemotherapy.