BACKGROUND

- Cancer Related Fatigue (CRF) is a common consequence for cancer survivors.
- There are multiple factors that may contribute to the increase of CRF.
- Studies have shown that certain cytokines may be associated with CRF in breast cancer survivors, specifically Transforming Growth Factor-β (TGF-β) (Cruz, 2015).

PURPOSE

The purpose of this study was to identify any correlation between TGF-β1 and self-reported fatigue.

METHOD

- Participants completed the Functional Assessment of Chronic Illness Therapy Fatigue Scale (FACIT-F) questionnaire.
- A blood sample was taken to determine TGF-β1 levels.
- Participants were grouped into high and low fatigue based on their FACIT-F scores.
- This grouping was based on the clinically significant level of fatigue.
- Correlation was calculated and a T-test was performed to determine if there was difference between high and low fatigue group.

RESULTS

There is a trend in the data that shows a relationship between the TGF-β1 and FACIT-F total score (r=.26, p=0.07).

A trend in the data shows TGF-β1 levels to be different for those who have clinically significant fatigue and those who do not have clinically significant fatigue.

DISCUSSION

- There was a consistent trend in the relationship between TGF-β1 and fatigue.
- There was a trend for groups of clinically significant fatigue to be different.
- Time since last treatment was the most significant influence on CRF based on high versus low fatigue groups.
- TGF-β1 is involved in tumor growth, but its exact mechanism in relation to CRF is unknown (NCBI, 2015).

LIMITATIONS

This was a pilot investigation and this study needs to be replicated in a study with a larger sample size.