

ORAL PRESENTATION

Open Access

Foxp3 expression in breast cancer patient from Qatar: survival analysis

Mahmoud G Mohamed^{1,2}, Hina Sarwath¹, Shaykha Alqahtani¹, Salha Bujjasoum², Imad Bin Mujeeb², Mufeed Almesteri², Hikmat Bugrein², Prem Chandra², Shahinaz Bedri^{1*}

From Breast Cancer Immunotherapy Symposium (BRECIS), part of the Sidra Symposia Series, held in partnership with the Society for Immunotherapy of Cancer Doha, Qatar. 13-14 April 2015

In breast cancer, the presence of Foxp3 (Tregs) [1] within the tumor milieu has been a matter of debate. Some studies have determined that infiltration of Tregs was associated with poor survival, while others revealed no impact on survival, however this depends on their type, type of cells expressing Foxp3 and the density of the Tregs population [2].

The goal of our study was to quantify Foxp3 in breast cancer patients from Qatar and correlate with their survival.

Methodology

Expression of FoxP3 was studied in 132 FFPE samples with known clinico-pathological data by immunohistochemistry technique and quantified by modified H-score system by pathologist. Results were analyzed via SPSS.

Results

Analysis was carried for 132 patients. Age at time of diagnosis was 49 ±10.4 years. 76.2% of the patients showed positive expression of FoxP3. FoxP3 expression was not correlated with patient age or hormone receptors. Expression of Foxp3 positively correlate with better patient survival when compared to negative expression (94.1, 95% CI 85.6 - 102.6 versus 83.6, 95% CI 71.8 - 95.5, p 0.60).

Conclusion

FoxP3 is expressed on lymphocytes that are present in the tumor microenvironment regardless of breast cancer subtypes. Foxp3 is correlated with better survival.

Authors' details

¹Research, Weill Cornell Medical College in Qatar, Doha, Qatar. ²Hamad Medical Corporation, Doha, Qatar.

Published: 14 August 2015

References

1. Mackay C.R.: Dual personality of memory T cells. *Nature* 1999, **401**(6754):659-660.
2. Mahmoud S.M., Paish E.C., Powe D.G., Macmillan R.D., Lee A.H., Ellis I.O., Green A.R.: An evaluation of the clinical significance of FOXP3+ infiltrating cells in human breast cancer. *Breast Cancer Research and Treatment* 2011b, **127**(1):99-108.

doi:10.1186/2051-1426-3-S1-O2

Cite this article as: Mohamed et al.: Foxp3 expression in breast cancer patient from Qatar: survival analysis. *Journal for ImmunoTherapy of Cancer* 2015 **3**(Suppl 1):O2.

**Submit your next manuscript to BioMed Central
and take full advantage of:**

- Convenient online submission
- Thorough peer review
- No space constraints or color figure charges
- Immediate publication on acceptance
- Inclusion in PubMed, CAS, Scopus and Google Scholar
- Research which is freely available for redistribution

Submit your manuscript at
www.biomedcentral.com/submit



¹Research, Weill Cornell Medical College in Qatar, Doha, Qatar
Full list of author information is available at the end of the article