

# Psychological morbidity in women diagnosed with ductal carcinoma in-situ compared to women with early breast cancer receiving radiotherapy

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## Background

- ❖ Ductal carcinoma in-situ (DCIS) is an early-stage non-invasive condition with limited potential for metastatic spread<sup>1-2</sup>.
- ❖ Studies have described similar patient-reported levels of fear regarding breast cancer recurrence and death when comparing women with DCIS to women with early invasive breast cancer (EIBC)<sup>3</sup>.
- ❖ Patient anxiety and depression can have tangible impacts on treatment decisions and preferred intervention

## Materials and Methods

- ❖ Population: Patients diagnosed with DCIS or EIBC (Stage I or II breast cancer) from 2011-2017 who had >1 Edmonton Symptom Assessment Scale (ESAS) completed pre- and post-radiotherapy (RT)
- ❖ Data on systemic treatment, radiation, patient demographics and disease stage were extracted from existing databases. Psychological morbidity was evaluated through measurement of depression, anxiety and overall wellbeing within the ESAS.

**Table 2:** ESAS Scores before and after RT in Group 1 (DCIS), Group 2 (EIBC) and Group 3 (EIBC No Chemotherapy)

	Group 1 (N=137)	Group 2 (N=963)	1 vs 2 p-value	Group 3 (N=518)	1 vs 3 p-value
<b>ESAS before RT</b>					
<b>Depression</b>					
Mean	1.25	1.65	<b>0.0060</b>	1.61	<b>0.0385</b>
<b>Anxiety</b>					
Mean	2.20	2.41	0.2574	2.58	0.0969
<b>Wellbeing</b>					
Mean	2.43	2.63	0.0780	2.46	0.4919
<b>ESAS after RT</b>					
<b>Depression</b>					
Mean	1.27	1.66	0.1176	1.70	0.2446
<b>Anxiety</b>					
Mean	1.63	2.10	<b>0.0486</b>	2.14	0.0684
<b>Wellbeing</b>					
Mean	2.34	2.68	0.1231	2.71	0.1542

## Results

- ❖ From a total population of 1224 patients this study included 3 study groups (table 1).

**Table 1:** Characteristics and size of study groups

	Inclusion Criteria	Number (N)	% of total
Group 1:	DCIS	137	11
Group 2:	EIBC (Stage I/II)	963	79
**Group 3:	EIBC (Stage I/II) no Chemotherapy	518	42
Group 4: Excluded	Advanced Disease (Stage III/IV)	124	10

**\*\*Note:** Group 3 is a subset of Group 2 not receiving chemotherapy

- ❖ ESAS was completed on average 28 days before RT (baseline) and 142 days after RT

### ❖ Group 1 vs. 2

- **Baseline:** Patient in Group 2 had significantly higher baseline depression scores that those in Group 1 (p=0.006) (Table 2)
- **Post RT:** Patients in Group 2 had higher anxiety scores after RT compared to those in Group 1 (p=0.049) (Table 2)

### ❖ Group 1 vs. 3

- **Baseline:** Patients from Group 3 had significantly higher baseline depression scores (more depressive symptoms) compared to Group 1 (p=0.039) (Table 2)
- **Post RT:** Differences between groups failed to reach statistical significance

### ❖ Discrete Changes – Pre to Post Therapy

- No differences observed between groups

## Discussion/Conclusion

### ❖ Limitations

- Retrospective design
- No adjustment for comorbidities
- Differences in patient response time post radiation

### ❖ Conclusions

- Diagnosis of DCIS seems to carry less psychological impact than a diagnosis of EIBC
- Accurate understanding of breast cancer related risk is essential for women with DCIS to make a rational, informed choice about their treatment options

## References

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