EBRT VS APBI: PATIENT SATISFACTION
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PURPOSE/OBJECTIVE
- Determine differences in patient satisfaction between external beam radiation therapy (EBRT) and accelerated partial breast irradiation (APBI) via HDR brachytherapy

MATERIALS/METHODS
- Charts from 2002 to 2014 (APBI) and 2012 to 2014 (EBRT) were retrospectively reviewed
- Criteria for APBI treatments were ER+ (after 2010), N0 (after 2010), T < 3 cm, and post-menopausal
- All patients were given a survey with FACET breast quality of life (QoL) questions
- Patients rated their amount of: decreased energy, nausea, pain, dyspnea, self-consciousness, and presence of lymphedema from 0 to 4
- Patients were asked to rate their breast's appearance (score of 1-10)
- Treatment details (device manufacturer, radiation dosing, chemotherapy, hormone manipulation, and stage) were collected

RESULTS
- 242 APBI patients and 59 EBRT patients were identified
- 34 women in the EBRT cohort met our criteria for APBI treatment
- The survey was completed by 80 women (33%; mean follow-up time of 14 months) treated with APBI and 26 women (76%; mean follow-up time of 26 months) treated with EBRT who were APBI eligible
- Women treated with EBRT reported more self-consciousness (p=0.001) and lymphedema (p=0.001) than those treated with APBI (Figure 1)
- During the first year post-treatment, APBI low energy (p=0.009), nausea (p=0.007), self-consciousness (p<0.000), and lymphedema (p=0.0002) scores were significantly better than EBRT scores (Figure 2)

Figure 1. Cosmetic Scores & FACET Survey Results

- In the APBI cohort, older patients reported less pain (p=0.0008, R=-0.4) and self-consciousness (p=0.02, R=-0.3)
- The single lumen Mammosite balloon (LSmean score = 6.3/10) was found to be associated with worse patient graded appearance compared to the multi-lumen balloons (Mammosite ML and Contura; LSmean score = 8.2/10; p=0.002) (Figure 3)
- The Mammosite balloon (LSmean score =1.0/4) was found to be associated with significantly more dyspnea when compared to the Savi (LSmean score =0.2/4; p=0.01) and multi-lumen (LSmean score = 0.5/4; p=0.01) devices (Figure 3)
- There were no significant differences in rates of recurrence between balloons (p=0.7)

Figure 2. Change in Survey Scores Over Time

- Catheter based APBI treated patients were significantly happier and reported less toxicity than patients in the matched whole breast EBRT cohort
- FACET scores tended to fall over time, representing improved quality of life
- Younger patients had worse self reported outcomes
- Multi-lumen catheters provided superior cosmetic outcomes and less reported dyspnea compared to single lumen catheters

CONCLUSIONS