Year in Review

Proceedings from a Multitumor CME Symposium Focused on the Application of Emerging Research Information to the Care of Patients with Common Cancers

Genomic Assays, Novel Agents and Treatment Strategies for ER-Positive Breast Cancer — Howard A Burris III, MD

Select Publications

Sanft TB et al. **Prospective study of the decision-making impact of the Breast Cancer Index in the selection of patients with ER+ breast cancer for extended endocrine therapy.** *Proc ASCO* 2015;**Abstract 538**.

Sparano JA et al. **Prospective validation of a 21-gene expression assay in breast cancer.** *N Engl J Med* 2015;373(21):2005-14.

Tolaney SM et al. **A phase Ib study of abemaciclib with therapies for metastatic breast cancer.** *Proc ASCO* 2015;**Abstract 522**.

Tolaney SM et al. **Clinical activity of abemaciclib, an oral cell cycle inhibitor, in metastatic breast cancer.** San Antonio Breast Cancer Symposium 2014;**Abstract P5-19-13**.

Turner NC et al. **Palbociclib in hormone-receptor-positive advanced breast cancer.** *N Engl J Med* 2015;373(3):209-19.

Turner NC et al. **PALOMA3: A double-blind, phase III trial of fulvestrant with or without palbociclib in pre- and post-menopausal women with hormone receptor-positive, HER2-negative metastatic breast cancer that progressed on prior endocrine therapy.** *Proc ASCO* 2015;**Abstract LBA502**.

Zhang Y et al. **Breast cancer index identifies early-stage estrogen receptor-positive breast cancer patients at risk for early- and late-distant recurrence.** *Clin Cancer Res* 2013;19(15):4196-205.

Genomic Assays, Novel Agents and Treatment Strategies for ER-Positive Breast Cancers

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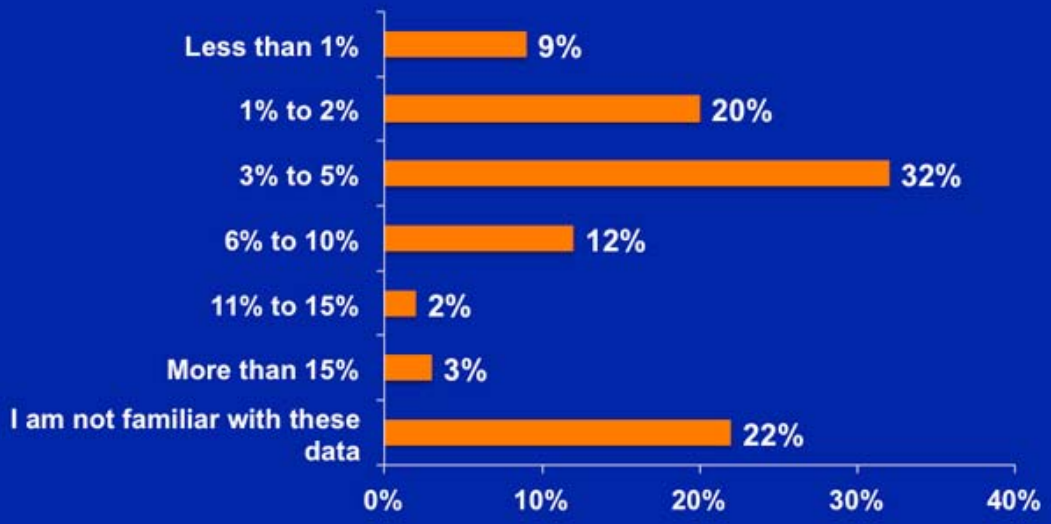
Disclosures

No financial interests or affiliations to disclose.

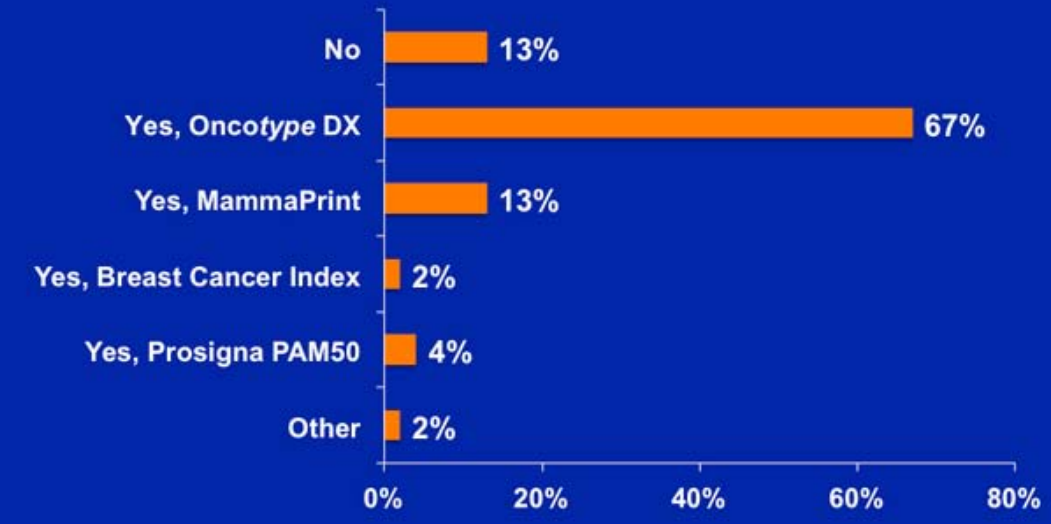
AUDIENCE POLL

Based on the just-reported results of the TAILORx trial, what is the risk of recurrence in patients with node-negative tumors and 21-gene Recurrence Scores of 0 to 10?



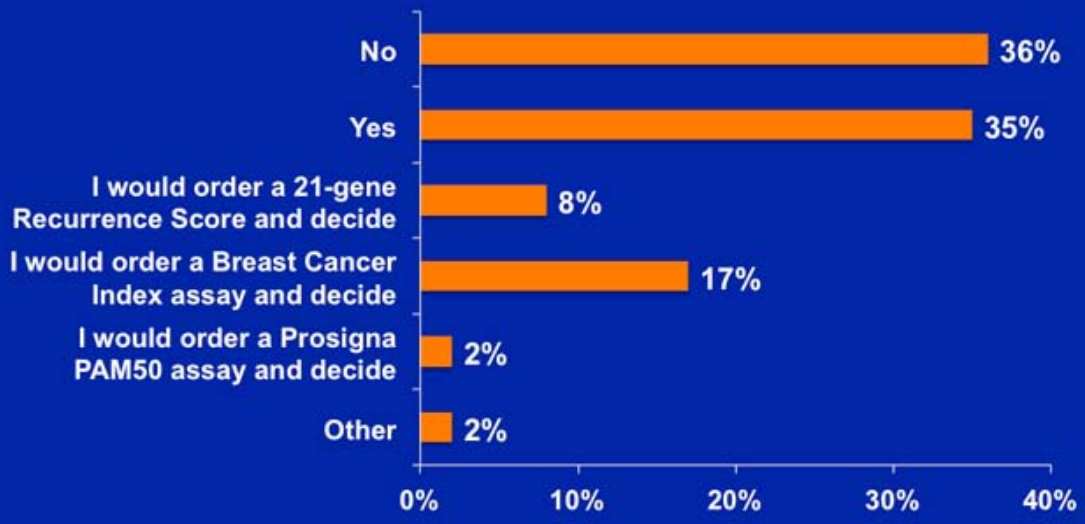
AUDIENCE POLL

A 60-year-old woman is s/p breast-conserving treatment for a 3.2-cm, ER-positive/HER2-negative, node-negative IDC. In general, would you likely order a genomic tumor assay?



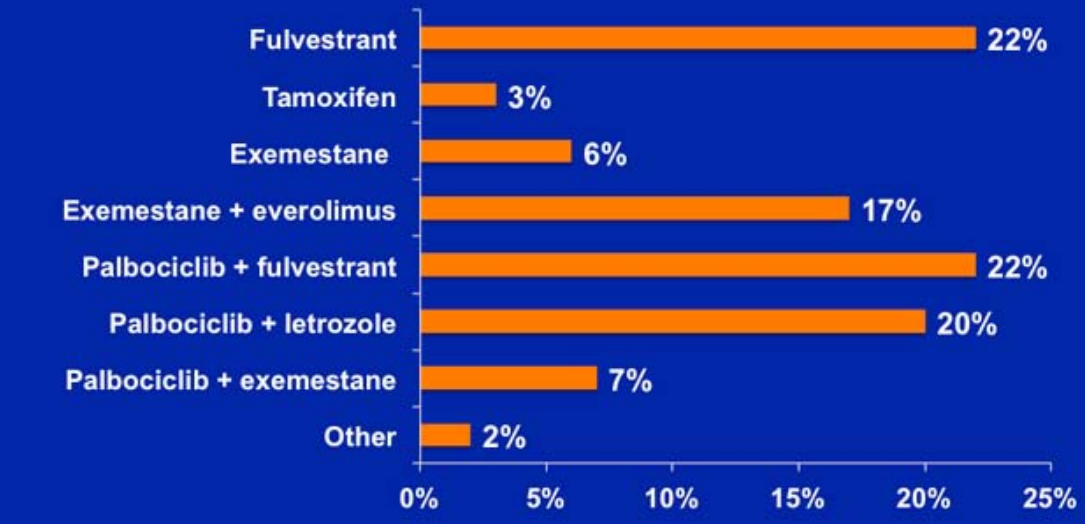
AUDIENCE POLL

A 60-year-old woman is s/p breast-conserving treatment for a 3.2-cm, ER-positive/HER2-negative, node-negative IDC. The patient receives AC → T adjuvant chemotherapy followed by anastrozole with good tolerance for 5 years. Would you continue the aromatase inhibitor?



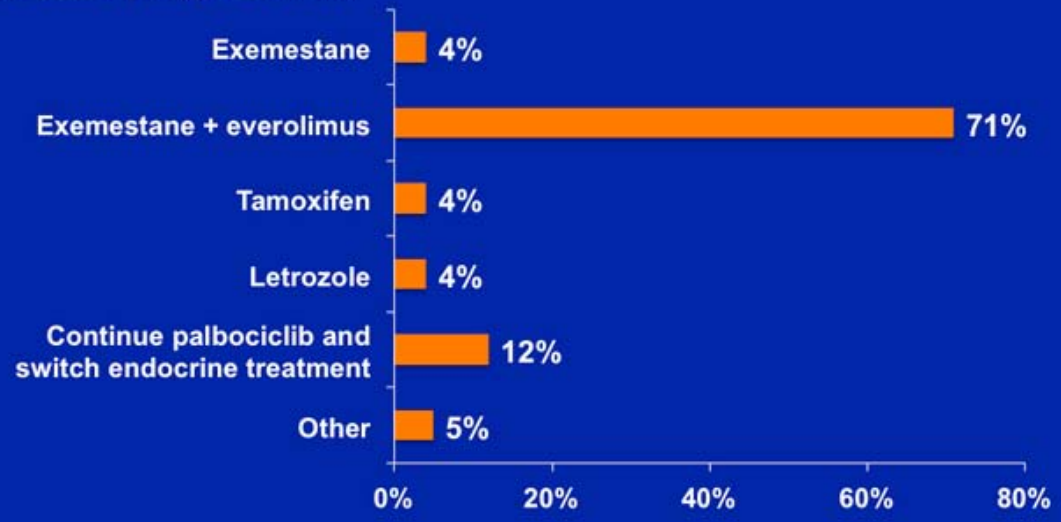
AUDIENCE POLL

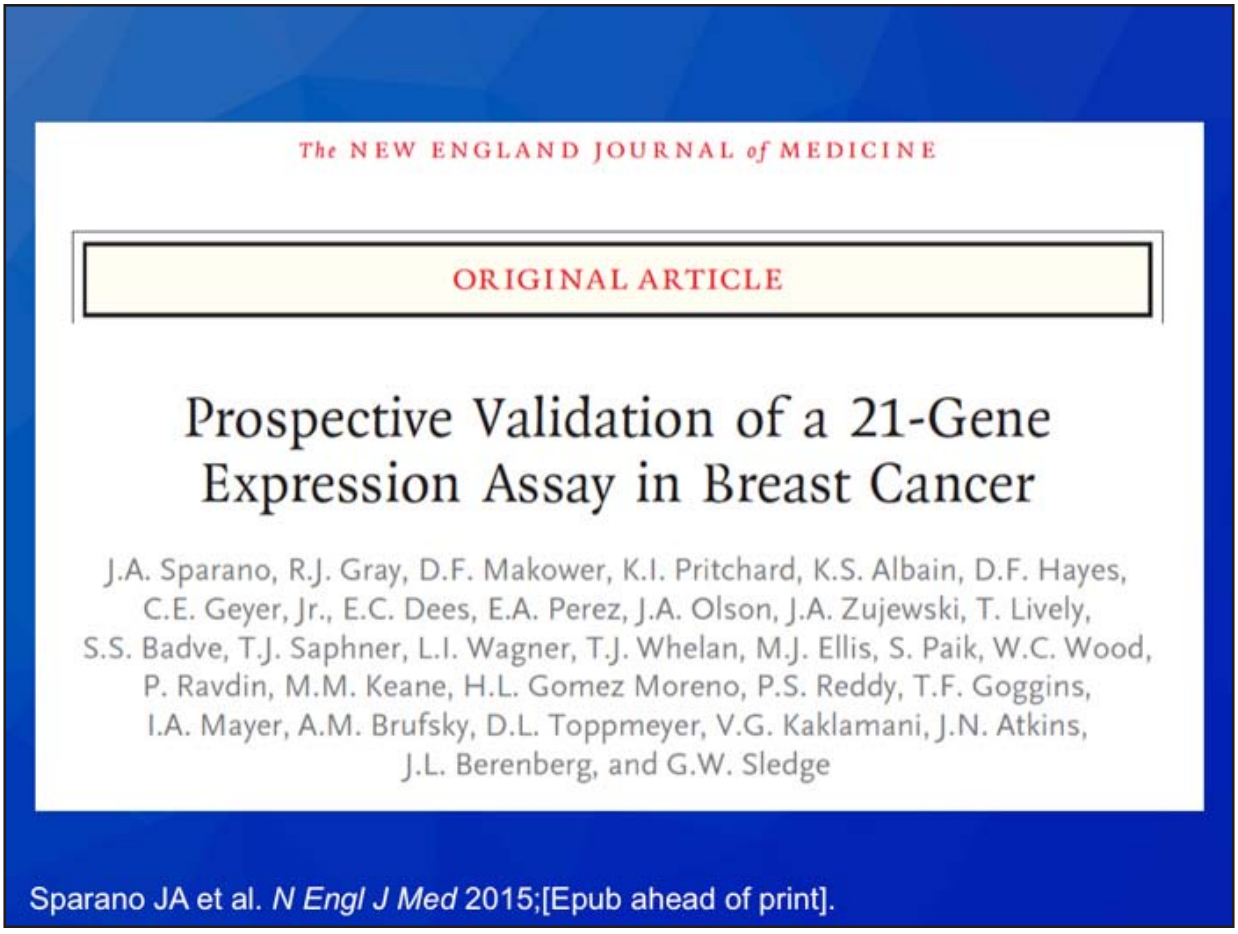
In general, which endocrine treatment would you recommend for a postmenopausal woman with ER-positive/ HER2-negative breast cancer who develops minimally symptomatic bone and lung metastases 2 years after starting anastrozole (in addition to bone-targeted therapy)?



AUDIENCE POLL

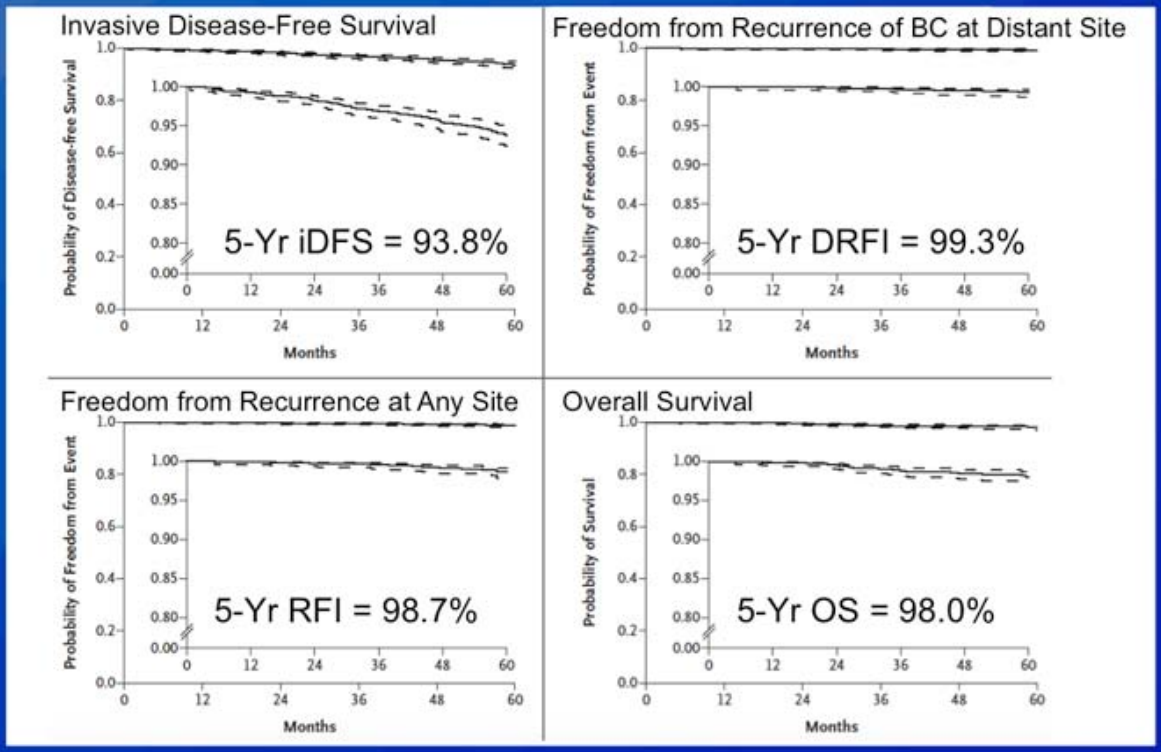
In general, which endocrine treatment would you recommend for a postmenopausal woman with ER-positive/ HER2-negative breast cancer who relapses after 2 years of adjuvant anastrozole and then receives fulvestrant/ palbociclib with response for 11 months followed by disease progression?





Sparano JA et al. *N Engl J Med* 2015;[Epub ahead of print].

TAILORx: Event Rates at 5 Years in 1,626 Women with Recurrence Scores of 0 to 10



Sparano JA et al. *N Engl J Med* 2015;[Epub ahead of print].

Conclusions

Critical finding(s): At 5 years, an any-site recurrence rate of 1.3% was observed in low Recurrence Score patients with only a 0.7% distant recurrence rate.

Clinical implication(s): Hormonal therapy alone provides excellent clinical outcomes in those patients with a low Onco*type* DX Recurrence Score.

Research relevance: The results of intermediate Recurrence Score patients randomized to receive adjuvant chemotherapy are anxiously awaited.

Prospective Study of the Decision-Making Impact of the Breast Cancer Index in the Selection of Patients with ER+ Breast Cancer for Extended Endocrine Therapy

Sanft TB et al.

Proc ASCO 2015;Abstract 538.

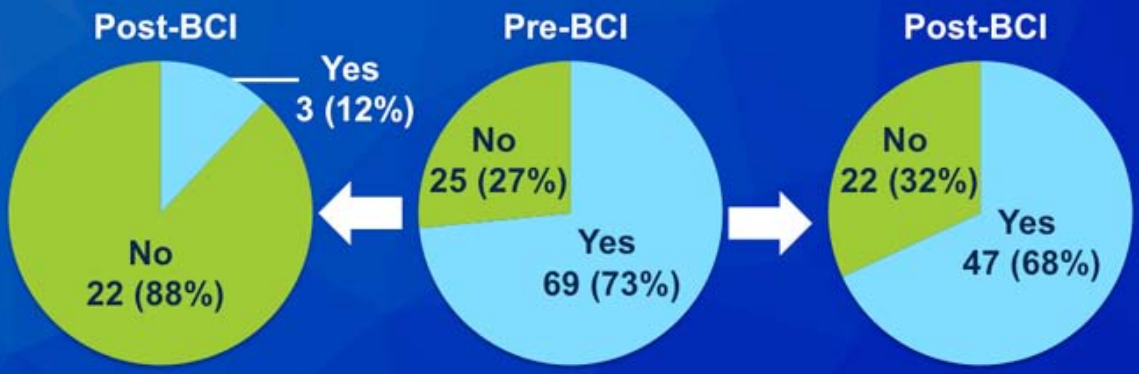
Kaplan-Meier Estimates of Early and Late Distant Recurrence-Free Survival (DRFS) for 3 Breast Cancer Index (BCI) Risk Groups

	Stockholm TAM treated		Multi-institutional	
Patient subgroups	**No. of patients (%)**	**DRFS**	**No. of patients (%)**	**DRFS**
Early distant recurrence at 5 years				
BCI low risk	202 (64%)	98.0	196 (55%)	95.9
BCI intermediate risk	65 (20%)	95.2	78 (22%)	92.3
BCI high risk	50 (16%)	87.8	84 (23%)	75.5
Late distant recurrence at 10 years				
BCI low risk	184 (65%)	97.2	181 (58%)	97.5
BCI intermediate risk	58 (20%)	92.8	70 (22%)	83.1
BCI high risk	43 (15%)	89.9	61 (20%)	85.0

Zhang Y et al. *Clin Cancer Res* 2013;19(15):4196-205.

Pre- and Post-Test Differences in Recommendations for Extended Endocrine Therapy

Would you recommend extending therapy beyond 5 years?



BCI = Breast Cancer Index

Sanft TB et al. *Proc ASCO* 2015;Abstract 538.

Conclusions

Critical finding(s): Treatment recommendations regarding extended adjuvant hormonal therapy changed in 27% of patients after BCI testing.

Clinical implication(s): Similar percent changes (~20%) in either extending or not extending hormonal therapy were recommended with BCI results.

Research relevance: BCI results improved patient satisfaction in 38% of patients and should be considered as part of future adjuvant studies.

PALOMA3: A Double-Blind, Phase III Trial of Fulvestrant with or without Palbociclib in Pre- and Post-Menopausal Women with Hormone Receptor-Positive, HER2-Negative Metastatic Breast Cancer that Progressed on Prior Endocrine Therapy

Turner NC et al. *Proc ASCO* 2015;Abstract LBA502.

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Palbociclib in Hormone-Receptor–Positive Advanced Breast Cancer

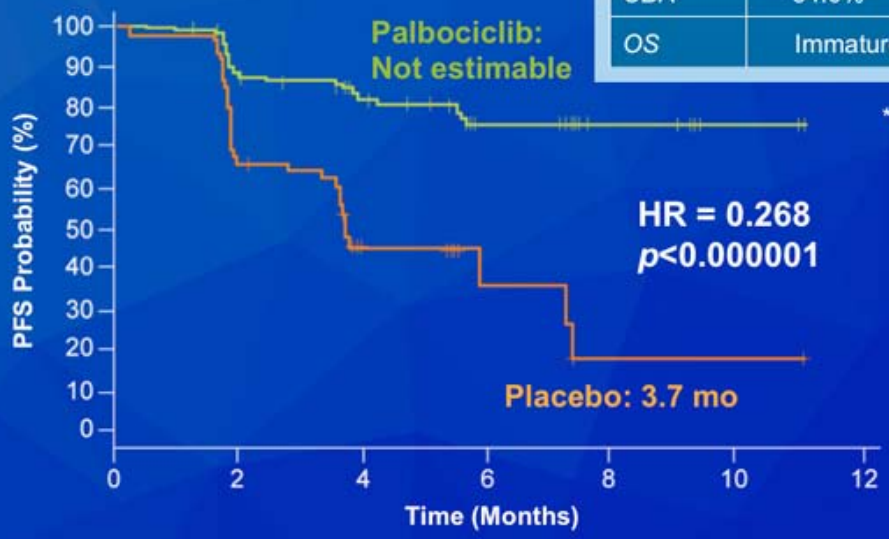
Nicholas C. Turner, M.D., Ph.D., Jungsil Ro, M.D., Fabrice André, M.D., Ph.D., Sherene Loi, M.D., Ph.D., Sunil Verma, M.D., Hiroji Iwata, M.D., Nadia Harbeck, M.D., Sibylle Loibl, M.D., Cynthia Huang Bartlett, M.D., Ke Zhang, Ph.D., Carla Giorgetti, Ph.D., Sophia Randolph, M.D., Ph.D., Maria Koehler, M.D., Ph.D., and Massimo Cristofanilli, M.D.

NEJM 2015; 373(3):209

Efficacy Results: Palbociclib/Fulvestrant versus Placebo/Fulvestrant

Outcome	Palbociclib (n = 347)	Placebo (n = 174)	*p*-value
ORR	10.4%	6.3%	0.1582
*CBR**	34.0%	19.0%	0.0004
OS	Immature at time of analysis		

*CBR is underestimated



Turner NC et al. *Proc ASCO* 2015;Abstract LBA502

Adverse Events

AE, %	Palbociclib + Fulvestrant (n = 345)			Placebo + Fulvestrant (n = 172)		
	Any Grade	Grade 3	Grade 4	Any Grade	Grade 3	Grade 4
Any AE	98	59	11	89	16	2
Neutropenia	79	53	9	3	0	1
Leukopenia	46	25	1	4	0	1
Anemia	26	3	0	10	2	0
Thrombocytopenia	19	2	1	0	0	0
Fatigue	38	2	0	27	1	0
Nausea	29	0	0	26	1	0

Turner NC et al. *Proc ASCO* 2015;Abstract LBA502

Conclusions

Critical finding(s): The addition of palbociclib to fulvestrant improved PFS (9.2 versus 3.8 months) in metastatic breast cancer patients progressing on prior hormonal therapy with minimal side effects reported.

Clinical implication(s): Palbociclib plus fulvestrant should be considered for patients who are progressing on hormonal therapy.

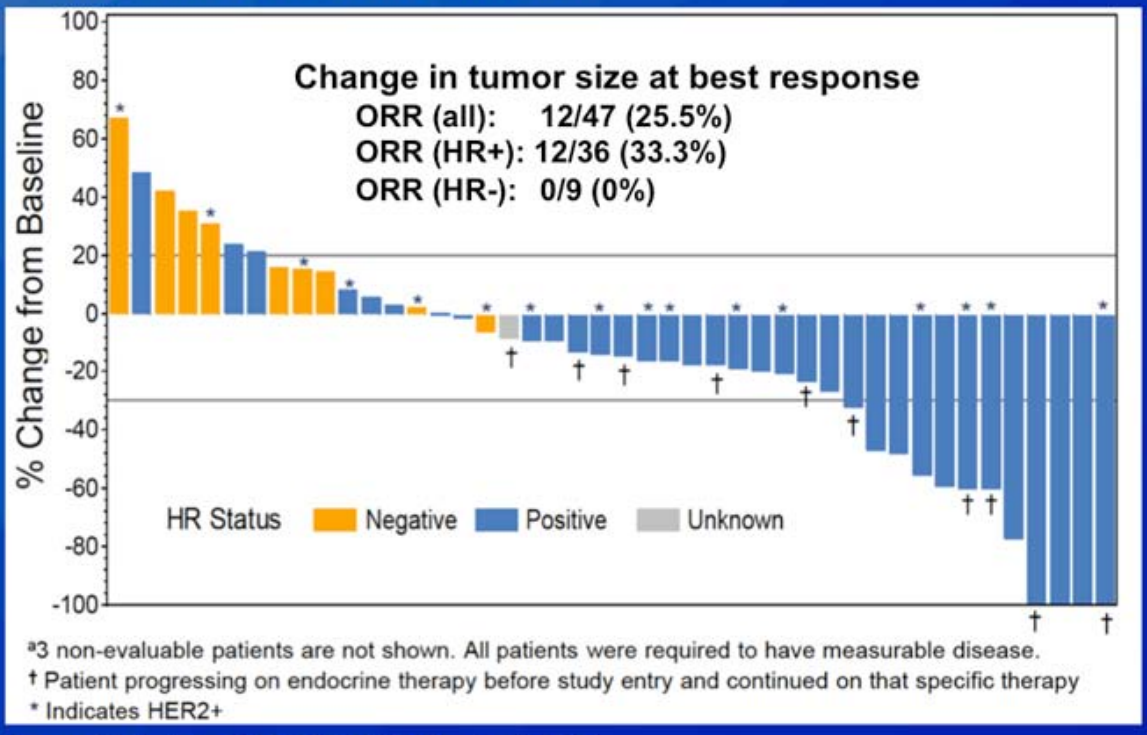
Research relevance: Palbociclib plus a hormonal agent is the new standard for hormone-positive metastatic breast cancer.

A Phase Ib Study of Abemaciclib with Therapies for Metastatic Breast Cancer

Tolaney SM et al.

Proc ASCO 2015; Abstract 522

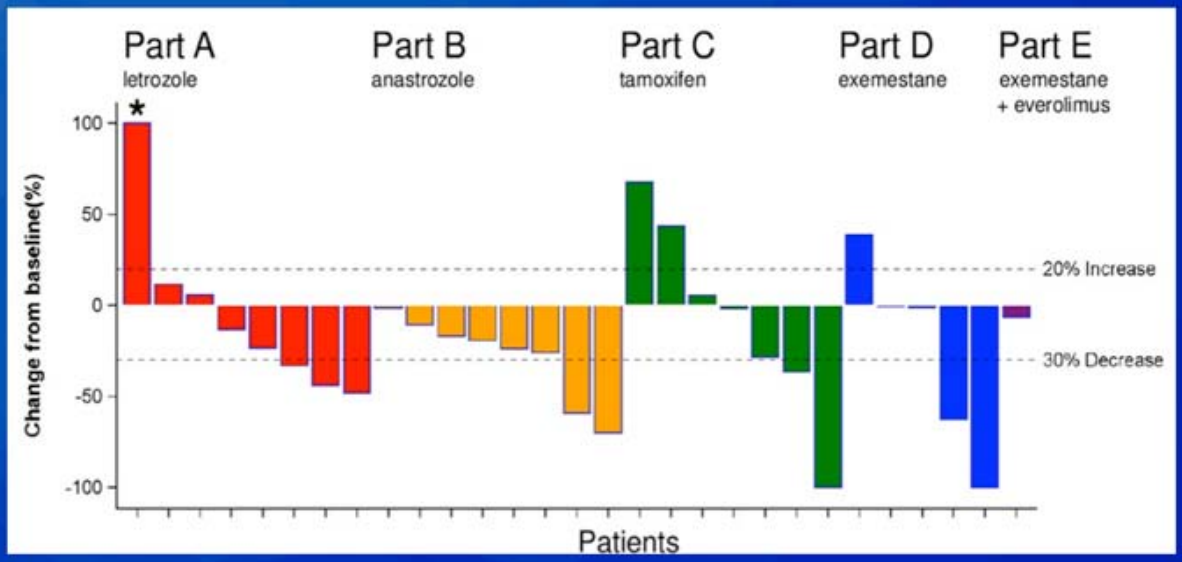
Abemaciclib Monotherapy in Advanced or Metastatic Breast Cancer



[a]3 non-evaluable patients are not shown. All patients were required to have measurable disease.
† Patient progressing on endocrine therapy before study entry and continued on that specific therapy
* Indicates HER2+

Tolaney SM et al. SABCS 2014; Abstract 763.

Best Change in Tumor Size from Baseline with Abemaciclib Combined with Other Therapies



* For this patient, change in tumor size is greater than 100%.

Tolaney SM et al. *Proc ASCO* 2015;Abstract 522.

Conclusions

Critical finding(s): Abemaciclib monotherapy produced substantial responses (>25%) in previously treated hormone-positive metastatic breast cancer. Responses were also seen in arms combining abemaciclib with approved hormonal therapies.

Clinical implication(s): Single-agent abemaciclib showed encouraging activity in previously treated metastatic breast cancer patients.

Research relevance: Comparisons of the benefit of adding hormonal therapy to abemaciclib in various disease settings will be important.