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

Triple-Negative Breast Cancer — Ruth O'Regan, MD

Select Publications

Nanda R et al. **A phase Ib study of pembrolizumab (MK-3475) in patients with advanced triple-negative breast cancer.** San Antonio Breast Cancer Symposium 2014;**Abstract S1-09**.

Traina TA et al. **Results from a phase 2 study of enzalutamide (ENZA), an androgen receptor (AR) inhibitor, in advanced AR+ triple-negative breast cancer (TNBC).** *Proc ASCO* 2015;**Abstract 1003**.

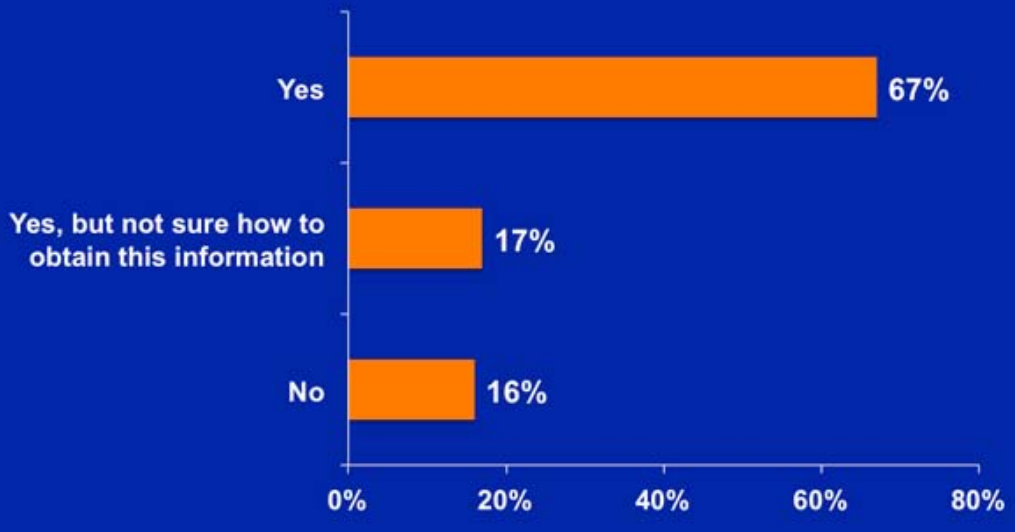
Untch M et al. **A randomized phase III trial comparing neoadjuvant chemotherapy with weekly nanoparticle-based paclitaxel with solvent-based paclitaxel followed by anthracyline/cyclophosphamide for patients with early breast cancer (GeparSepto); GBG 69.** San Antonio Breast Cancer Symposium 2014;**Abstract PD2-6**.

Disclosures

Advisory Committee	AstraZeneca Pharmaceuticals LP, Genentech BioOncology, Novartis Pharmaceuticals Corporation, Pfizer Inc

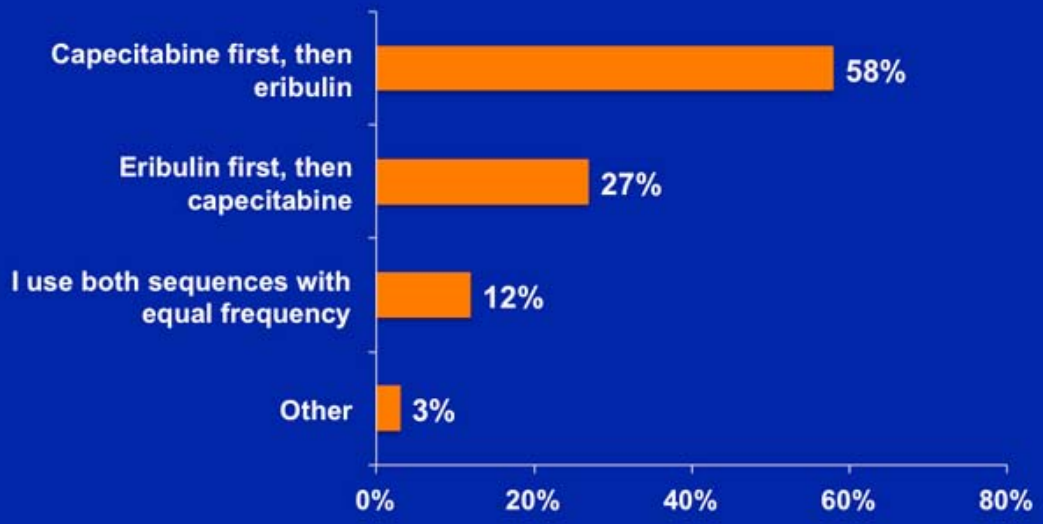
AUDIENCE POLL

For a patient with refractory metastatic triple-negative breast cancer (TNBC) who wishes to receive further treatment, would you order a multiplex genomic assay such as next-generation sequencing?



AUDIENCE POLL

For patients with metastatic TNBC, how do you generally sequence capecitabine and eribulin?

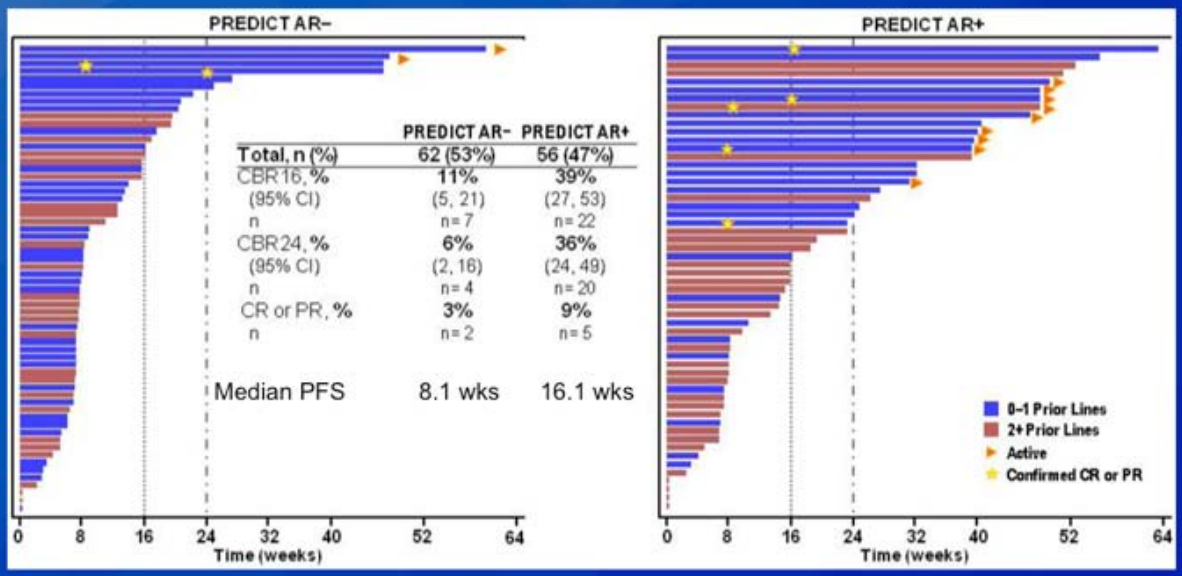


Results from a Phase 2 Study of Enzalutamide (ENZA), an Androgen Receptor (AR) Inhibitor, in Advanced AR+ Triple-Negative Breast Cancer (TNBC)

Traina TA et al.

Proc ASCO 2015;Abstract 1003.

MDV3100-11: Clinical Benefit According to PREDICT AR



CR, complete response; PR, partial response; PFS, progression-free survival; CBR, clinical benefit rate

Traina TA et al. *Proc ASCO* 2015;Abstract 1003.

Conclusions

Critical finding(s): Enzalutamide exhibits activity in AR-positive TNBC, especially in cancers with AR expression >10% and those with a unique predictive genomic phenotype called PREDICT AR+.

Clinical implication(s): Further evaluation of AR-directed therapies is warranted in AR-positive TNBC using a breast-specific assay for measuring AR expression. PREDICT AR may be used to select patients most likely to benefit from AR-directed therapies.

Conclusions

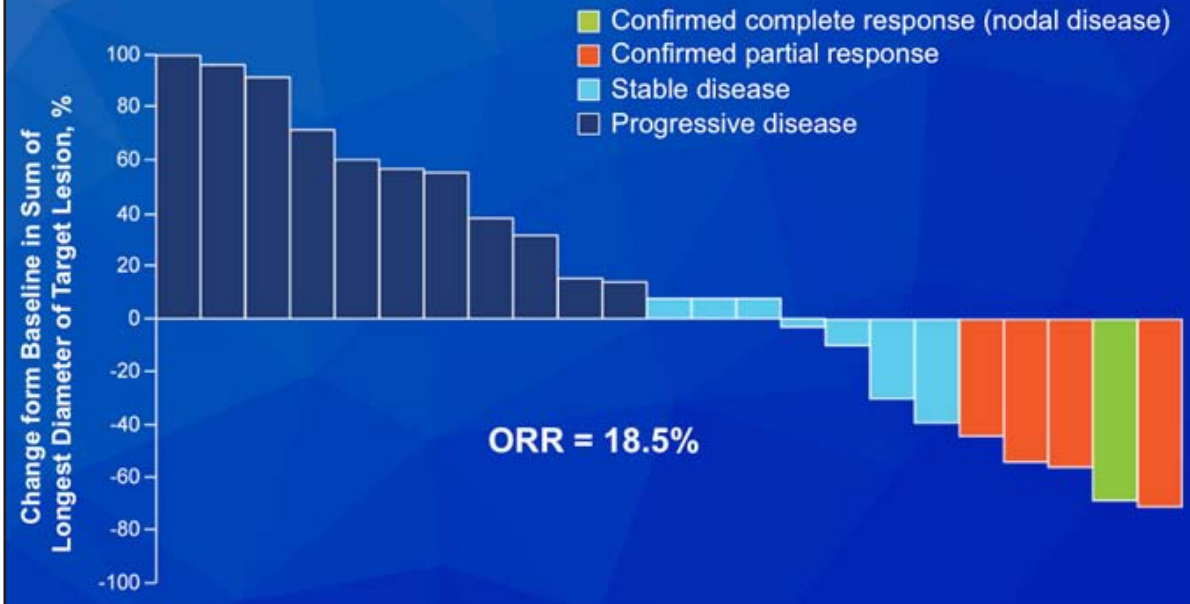
Research relevance: Evaluation of AR in TNBC is warranted to select patients who may benefit from AR-directed therapies. Further research should focus on confirmatory trials with enzalutamide and other AR-directed agents. The use of PREDICT AR to select patients likely to benefit from AR-directed therapies requires further validation.

A Phase Ib Study of Pembrolizumab (MK-3475) in Patients with Advanced Triple-Negative Breast Cancer

Nanda R et al.

San Antonio Breast Cancer Symposium 2014;Abstract S1-09.

ORR and Maximum Percentage Change from Baseline in Target Lesions (N = 23)



Nanda R et al. SABCS 2014;Abstract S1-09.

Conclusions

Critical finding(s): Pembrolizumab appears active as a single agent in patients with triple-negative breast cancer.

Clinical implication(s): The activity of pembrolizumab in triple-negative breast cancer appears promising. Patients with triple-negative breast cancer should be considered for enrollment in trials utilizing immunologic approaches.

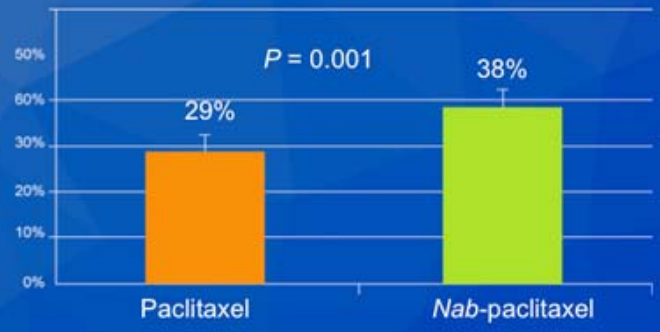
Research relevance: The use of immunologic approaches to treat cancers appears promising and warrants further evaluation. Biomarkers associated with efficacy will be important to determine which patients are likely to benefit.

A Randomized Phase III Trial Comparing Neoadjuvant Chemotherapy with Weekly Nanoparticle-Based Paclitaxel with Solvent-Based Paclitaxel Followed by Anthracyline/Cyclophosphamide for Patients with Early Breast Cancer (GeparSepto); GBG 69

Untch M et al.

San Antonio Breast Cancer Symposium 2014;Abstract S2-07.

Primary Endpoint: pCR (ypT0 ypN0)



Parameter	Subgroup	pCR (%)	*p*-value
SPARC	SPARC negative SPARC positive	28.8 vs 37.7 29.8 vs 48.3	0.003 0.074
Ki-67	Ki67 ≤20% Ki67 >20%	19.6 vs 26.1 33.1 vs 44.0	0.137 0.001
Biological subtype	HER2-, HR+ HER2-, HR- HER2+, HR+ HER2+, HR-	12.0 vs 16.0 25.7 vs 48.2 50.0 vs 56.4 66.7 vs 74.6	0.183 <0.001 0.275 0.371
HER2	HER2- HER2+	17.7 vs 27.0 54.1 vs 61.8	<0.001 0.120
HR status	HR- HR+	36.1 vs 56.1 25.6 vs 29.9	<0.001 0.169

Untch M et al. SABCS 2014;Abstract S2-07.

Conclusions

Critical finding(s): The substitution of *nab* paclitaxel for paclitaxel followed by doxorubicin/cyclophosphamide increased the rate of pathologic complete response (pCR) in patients with breast cancer, most notably in patients with TNBC, where pCR was almost doubled.

Clinical implication(s): *Nab* paclitaxel is an option, though not approved, as an alternative to paclitaxel as preoperative therapy for TNBC. Given the lack of approval, *nab* paclitaxel could be considered in patients who are unable to tolerate paclitaxel. The findings are somewhat surprising given the fact that *nab* paclitaxel was not superior to paclitaxel in the first-line metastatic setting.

Conclusions

Research relevance: Findings need to be confirmed in patients with TNBC. The addition of carboplatin to *nab* paclitaxel in the preoperative setting may be worth investigating.