

Predictive value of p27^{KIP1} expression in premenopausal women with early-stage hormone receptor-positive breast cancer

Sub-category:

Adjuvant Therapy

Category:

Breast Cancer - Local-Regional and Adjuvant Therapy

Meeting:

2003 ASCO Annual Meeting

Session Type and Session Title:

Integrated Education Session, Role of Molecular and Genetic Markers in Breast Cancer Treatment Decisions

Abstract No:

10

Citation:

Proc Am Soc Clin Oncol 22: 2003 (abstr 10)

Author(s):

M. Filipits, G. Pohl, M. Rudas, O. Dietze, S. Lax, R. Pirker, C. C. Zielinski, E. Kubista, H. Samonigg, R. Jakesz; University Hospital, Vienna, Austria; Salzburg Hospital, Salzburg, Austria; Graz Hospital, Graz, Austria; University Hospital, Graz, Austria

Abstract:

Decreased expression of the cyclin-dependent kinase inhibitor p27^{KIP1} is associated with poor prognosis in breast cancer. The objective of the present study was to determine the predictive value of p27^{KIP1} in premenopausal women with early-stage hormone receptor-positive breast cancer. We examined tumor specimens from 512 breast cancer patients who were enrolled in the Austrian Breast & Colorectal Cancer Study Group (ABCSCG) Trial 5. In this trial, premenopausal, hormone-receptor positive breast cancer patients with stage I and II disease were randomized to receive either five years of tamoxifen plus three years of goserelin or six cycles of cyclophosphamide, methotrexate and 5-fluorouracil (CMF). In the present laboratory study to ABCSCG Trial 5, p27^{KIP1} expression was assessed by immunohistochemistry. Statistical analyses were performed to test for interaction between treatment and p27^{KIP1} status. High p27^{KIP1} expression (nuclear p27^{KIP1} staining in $\geq 50\%$ tumor cells) was observed in 413 (81%) patients. Combination endocrine therapy was superior to CMF in patients with high p27^{KIP1} expression but not in those with low p27^{KIP1} expression. In patients with high p27^{KIP1} expression, adjusted relative risks for relapse and death after combination endocrine treatment as compared with CMF were 0.52 (95% confidence interval [CI] = 0.32-0.83; P = 0.006) and 0.51 (95% CI = 0.21-1.25; P = 0.14), respectively. In patients with low p27^{KIP1} expression, the corresponding relative risks were 1.1 (95% CI = 0.47-2.6; P = 0.82) and 0.99 (95% CI = 0.29-3.36; P = 0.99), respectively. Tests for interaction between treatment and p27^{KIP1} expression were statistically significant only for relapse-free survival (P = 0.04) but not for overall survival (P = 0.24). Our results suggest that p27^{KIP1} may be a useful marker for the selection of premenopausal women with early-stage hormone receptor-positive breast cancer for adjuvant combination endocrine therapy but this requires further confirmation by prospective studies.

► **Associated Presentation(s):**

1. Predictive value of p27^{KIP1} expression in premenopausal women with early-stage hormone receptor-positive breast cancer

Meeting: 2003 ASCO Annual Meeting

Presenter: Martin Filipits

Session: Role of Molecular and Genetic Markers in Breast Cancer Treatment Decisions

(Integrated Education Session)

► **Other Abstracts in this Sub-Category:**

1. Molecular changes in tamoxifen-relapsed breast cancer: Relationship between ER, HER2 and P38-MAP-kinase.

Meeting: [2003 ASCO Annual Meeting](#) Abstract No: 7 First Author: M. Dowsett
Category: Breast Cancer - Local-Regional and Adjuvant Therapy - Adjuvant Therapy

2. Expression of Cox2, aromatase, HER-2/neu and their correlation with the long-term outcome of 930 stage I-III breast cancer (BrCa) patients. Results from the British Columbia (BC) Tissue Micro-Array Project (BCTMAP).

Meeting: [2003 ASCO Annual Meeting](#) Abstract No: 9 First Author: J. Ragaz
Category: Breast Cancer - Local-Regional and Adjuvant Therapy - Adjuvant Therapy

3. Older women with node positive (N+) breast cancer (BC) get similar benefits from adjuvant chemotherapy (Adj) as younger patients (pts): The Cancer and Leukemia Group B (CALGB) experience

Meeting: [2003 ASCO Annual Meeting](#) Abstract No: 11 First Author: H. B. Muss
Category: Breast Cancer - Local-Regional and Adjuvant Therapy - Adjuvant Therapy

[More...](#)

► **Abstracts by M. Filipits:**

1. Use of immunohistochemical evaluation of DNA repair proteins to demonstrate cisplatin response prediction in resected NSCLC squamous cell carcinoma.

Meeting: [2011 ASCO Annual Meeting](#) Abstract No: 10579 First Author: W. E. Pierceall
Category: Tumor Biology - Molecular Diagnostics and Staging

2. Clinical recommendations for EGFR mutation testing in non-small cell lung cancer (NSCLC): Results from a European workshop.

Meeting: [2010 ASCO Annual Meeting](#) Abstract No: e18038 First Author: R. Pirker
Category: Lung Cancer - Metastatic - Metastatic

3. Cyclin D1 expression in breast cancer patients and tamoxifen therapy.

Meeting: [2007 ASCO Annual Meeting](#) Abstract No: 523 First Author: M. Filipits
Category: Breast Cancer - Local-Regional and Adjuvant Therapy - Adjuvant Therapy

[More...](#)

► **Presentations by M. Filipits:**

1. Impact of the EndoPredict-clin score on risk stratification in ER-positive, HER2-negative breast cancer after considering clinical guidelines.

Meeting: [2012 ASCO Annual Meeting](#)
Presenter: [Martin Filipits, PhD](#)
Session: [Breast Cancer - HER2/ER \(General Poster Session\)](#)

2. Cyclin D1 expression in breast cancer patients and tamoxifen therapy.

Meeting: [2007 ASCO Annual Meeting](#)
Presenter: [Martin Filipits, PhD](#)
Session: [Breast Cancer - Local-Regional and Adjuvant Therapy \(Poster Discussion Session\)](#)

3. Predictive value of p27^{KIP1} expression in premenopausal women with early-stage hormone receptor-positive breast cancer

Meeting: [2003 ASCO Annual Meeting](#)
Presenter: [Martin Filipits, PhD](#)
Session: [Role of Molecular and Genetic Markers in Breast Cancer Treatment Decisions \(Integrated Education Session\)](#)

[More...](#)

► [Educational Book Manuscripts by M. Filipits:](#)

No items found.