Universitätsklinikum Düsseldorf

The SUCCESS C trial:

Interim analysis of toxicity evaluating the role of an anthracycline free chemotherapy-regimen in the adjuvant treatment of Her2-neu negative breast cancer

Ortmann, U.1; Salmen, J.1; Hepp, P.1.; Beckmann, M.W.2; Fehm, T.3.; Hindenburg, H.J.4; Lichtenegger, W.5; Rack,B.6; Schneeweiss, A.7; Janni, W.1

Heinrich-Heine-University Düsseldorf, Düsseldorf, Germany1, University of Erlangen, Erlangen, Germany2, Eberhard-Karls-University Tübingen, Tübingen, Germany3, Berufsverband Niedergelassener Gynäkologischer Onkologen in Deutschland e.V. 4, Charité Berlin Campus, Berlin, Germany5, Ludwig-Maximilians-University München, München, Germany6; University of Heidelberg, Heidelberg, Germany7

Background:

Taxane based anthracycline containing chemotherapy has been established as treatment option in the adjuvant setting of early breast cancer. Indication was recently enlarged for high risk node negative breast cancer. Promising retrospective data indicate equi-efficacy of anthracycline-free chemotherapy in Her2/neu-negative patients (Gennari et al., Slamon et al.). Anthracycline-free regimens are probably associated with less long-term toxicities, especially cardiac toxicities.

Methods:

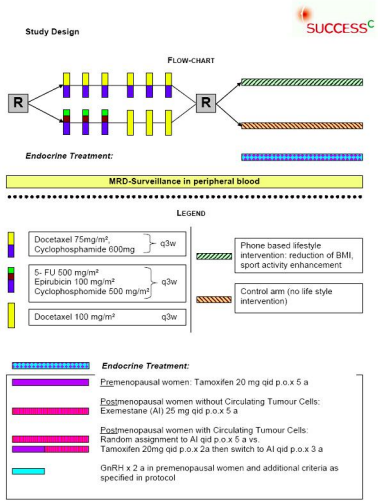
The SUCCESS-C trial is an open-label, multicenter, 2x2 factorial design, randomized controlled, phase III study comparing the disease free survival in patients treated with 3 cycles Fluorouracil 500mg/m2-Epirubicine 100mg/m2-Cyclophosphamide 500mg/m2 (FEC) chemotherapy, followed by 3 cycles Docetaxel 100mg/m2 (D) chemotherapy, versus 6 cycles Docetaxel 75mg/m2-Cyclophosphamide 600mg/m2 (DC) chemotherapy. Monitored toxicity data after end of treatment are available from1452 patients.

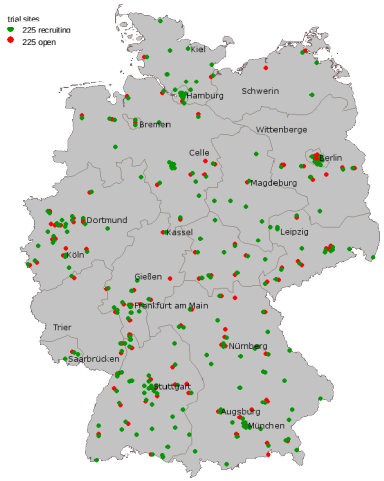
Results:

Chemotherapy was prematurely stopped in 51 pts (7.2%) receiving FEC-D and in 57 pts (7.7%) with DC (p=0.71). Dose reductions occurred significantly more often in the FEC-D arm (2,7%) than in the DC arm (1,9%, p=0,024), reasons did not differ significantly between both arms (p=0,093). Incidence of treatment-postponement was significantly higher for FEC-D (9,4% FEC-D vs. 7,6% DC; p=0,0008). Haematological toxicity as a reason for treatment-postponement occurred significantly more frequent within the FEC-D-arm (FEC-D: 18,1%, DC: 6,6%, p<0,0001); non-haematological toxicity as a reason for treatment postponement was nearly equal within both arms (8,6% FEC-D vs. 8,8% DC, p=0,9). G-CSF support was applied in 22,7% of all chemotherapy cycles (FEC-D: 22,2% vs. DC: 23,2%, p=0,21). Severe toxicities (NCI-grade > 2) were reported in 910 cases for FEC-D and in 848 cases for DC arm (p= 0,02).

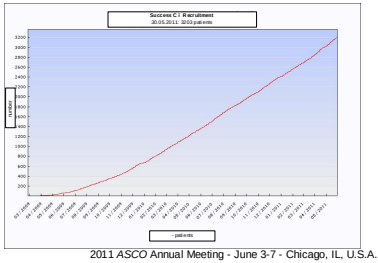
Conclusions:

Significantly more dose-reductions of chemotherapy and a significant higher incidence of treatment-postponement occurred in the FEC-D arm. The toxicity profiles of both treatment arms differ discretely and support the continuation of the trial until target recruitment (n=3547).





Grade 3-4 NCI Toxicities	FEC-D N = 711	DC N = 741	p-value
Febrile neutropenia	29	31	1
Leucopenia/Neutropenia (without fever)	551	517	0,0008
Thrombocytopenia	2	0	0,24
Anemia	4	4	1
Fatigue	28	18	0,10
Nausea/ Vomiting	24	16	0,2
Mucositis/ Stomatitis	19	5	0,003
Diarrhea	8	11	0,65
Hand-Foot-Syndrom	13	5	0,05
Thrombosis/ Embolism	7	10	0,52
Neuropathy	5	9	0,42



Arm	Dose-reductions					Total	%	Total number of cycles
	2	3	4	5	6			
FEC-D	13	15	12	55	48	143	**2,68**	5328,0
DC	11	11	22	25	33	102	**1,90**	5374,0
total	24	26	34	80	81	245	**2,29**	10702,0

Arm	Treatment-postponement					Total	%	Total number of cycles
	2	3	4	5	6			
FEC-D	103	104	120	75	100	502	**9,42**	5328,0
DC	91	77	80	71	90	409	**7,61**	5374,0
total	194	181	200	146	190	911	**8,51**	10702,0

2011 *ASCO* Annual Meeting - June 3-7 - Chicago, IL, U.S.A.

Uta Ortmann, Heinrich-Heine-University Duesseldorf, Germany, uta.ortmann@med.uni-duesseldorf.de