

Prognose efter lumpektomi og mastektomi

Peer Christiansen

Baggrund

Original Article

Survival After Lumpectomy and Mastectomy for Early Stage Invasive Breast Cancer

The Effect of Age and Hormone Receptor Status

E. Shelley Hwang, MD, MPH¹; Daphne Y. Lichtensztajn, MS²; Scarlett Lin Gomez, PhD³; Barbara Fowble, MD²; and Christina A. Clarke, PhD³

Research

Original Investigation

Effect of Breast Conservation Therapy vs Mastectomy on Disease-Specific Survival for Early-Stage Breast Cancer

Shailesh Agarwal, MD; Lisa Pappas, MS; Leigh Neumayer, MD; Kristine Kokeny, MD; Jayant Agarwal, MD

Annals of Oncology

Annals of Oncology 26: 1161–1169, 2015
doi:10.1093/annonc/ndv107
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Survival in stage I–III breast cancer patients by surgical treatment in a publicly funded health care system

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Annals of
SURGICAL ONCOLOGY
OFFICIAL JOURNAL OF THE SOCIETY OF SURGICAL ONCOLOGY



ORIGINAL ARTICLE – BREAST ONCOLOGY

Survival is Better After Breast Conserving Therapy than Mastectomy for Early Stage Breast Cancer: A Registry-Based Follow-up Study of Norwegian Women Primary Operated Between 1998 and 2008

Olaf Johan Hartmann-Johnsen, MD^{1,4}, Rolf Kåresen, MD, PhD^{2,3}, Ellen Schlichting, MD, PhD⁴, and Jan F. Nygård, PhD^{1,2}



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EJSO
the Journal of Cancer Surgery

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Women treated with breast conserving surgery do better than those with mastectomy independent of detection mode, prognostic and predictive tumor characteristics

S. Hofvind^{a,b,c}, Å. Holen^a, T. Aas^c, M. Roman^{a,d},
S. Sebuødegård^a, L.A. Akslen^{c,d}

Articles

10 year survival after breast-conserving surgery plus radiotherapy compared with mastectomy in early breast cancer in the Netherlands: a population-based study

Mariëtte C van Maaren, Linda de Munck, Geertuida H de Boek, Jan J Jansen, Thijs van Dalen, Sabine C Linn, Philip Poortmans*, Luc J A Strobbe*, Sabine Siesling



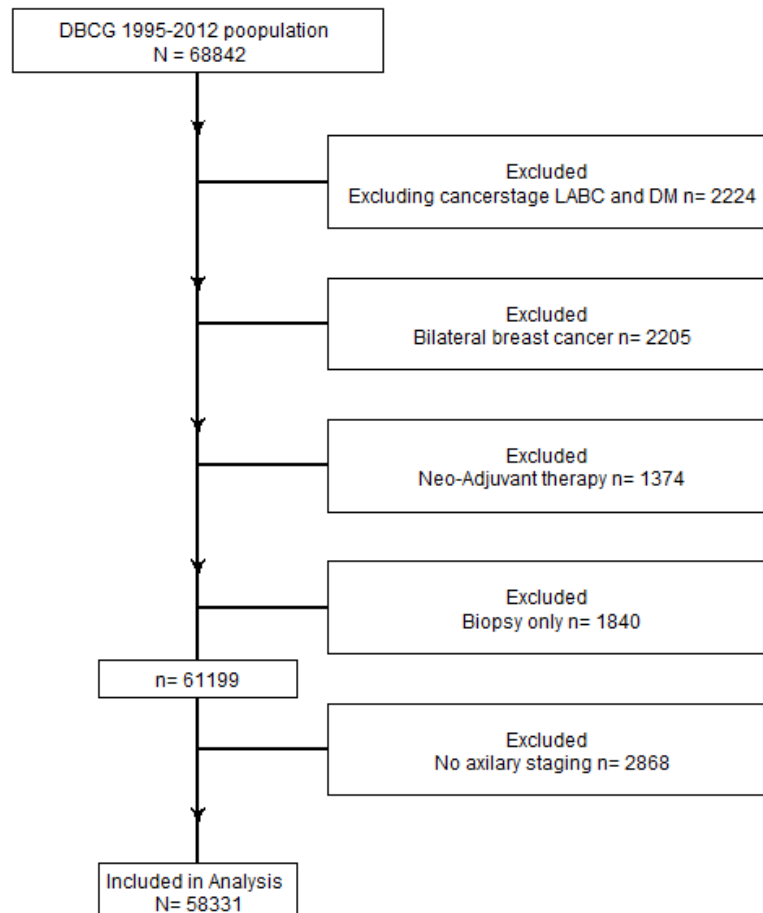
www.impactjournals.com/oncotarget/

Oncotarget, Vol. 6, No. 37

Comparative effectiveness study of breast-conserving surgery and mastectomy in the general population: A NCDB analysis

Kai Chen^{1,2,3,*}, Jieqiong Liu^{1,2,3,*}, Liling Zhu^{1,2}, Fengxi Su^{1,2}, Erwei Song^{1,2}, Lisa K. Jacobs²

Materiale

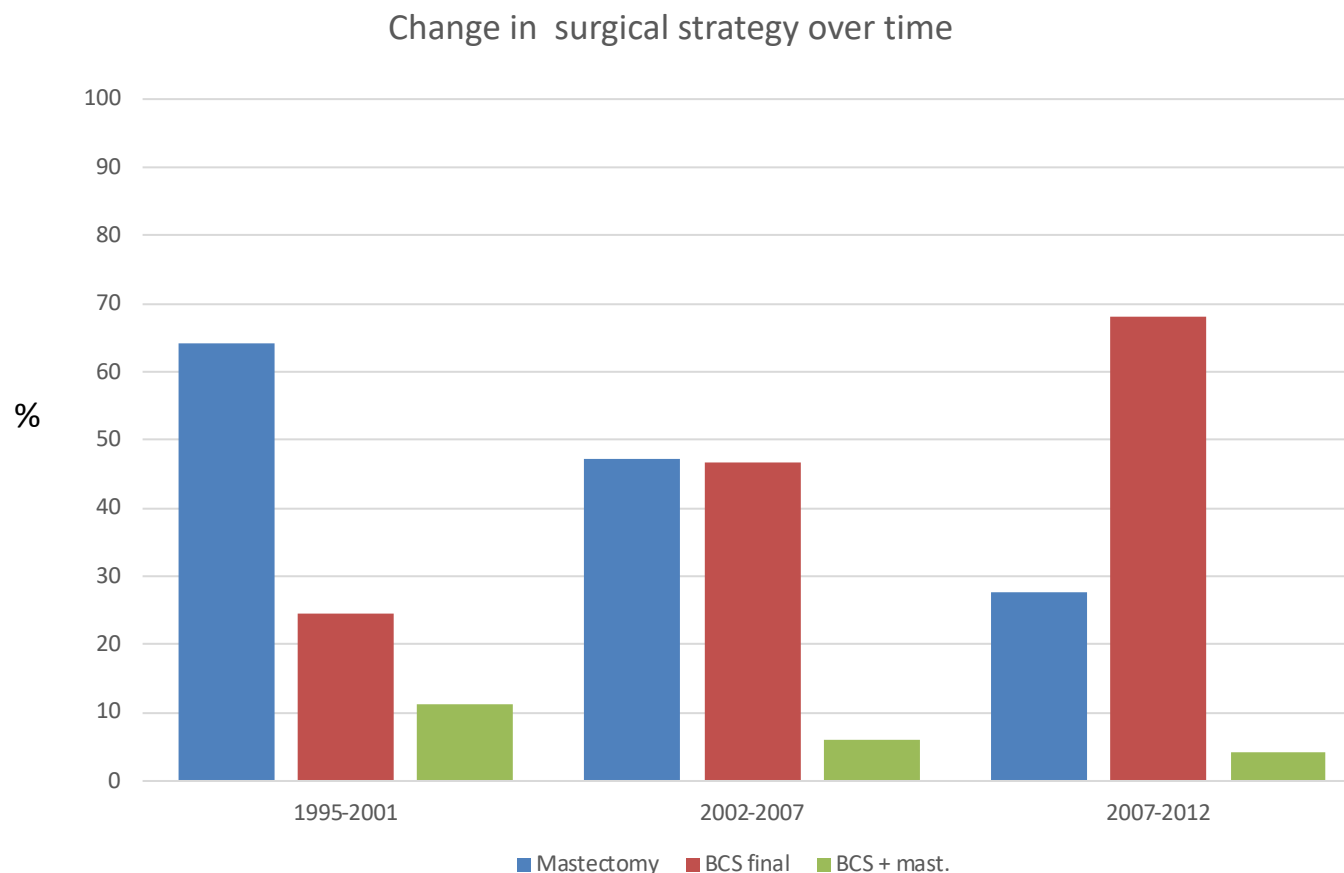


Metode

- Datakilder:
 - DBCG-registerdata
 - Data fra LPR: tidligere kirurgi, komorbiditet
 - Patobanken
 - CPR-registret: vitalstatus
 - Danmarks Statistik: overlevelsesdata for den danske befolkning

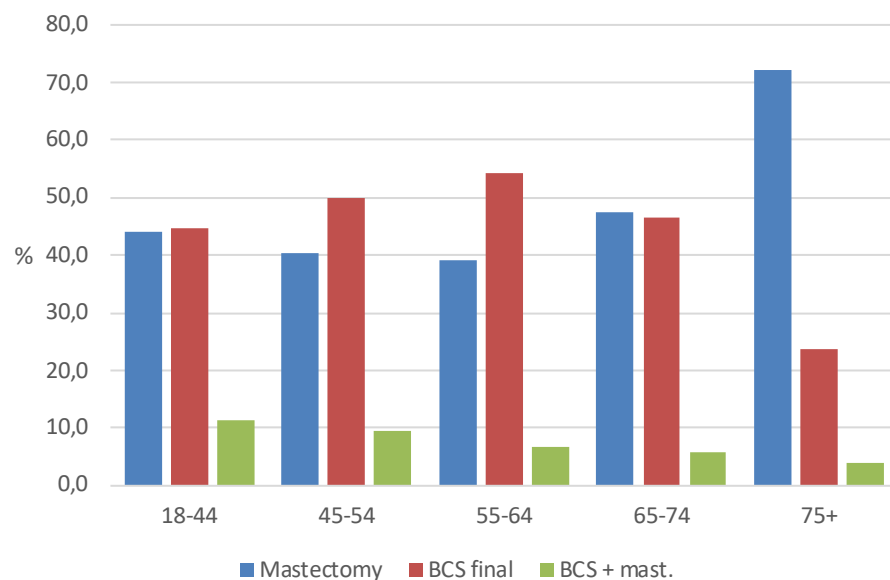
- Endepunkter
 - Samlet overlevelse (Overall survival)
 - Relativ overlevelse (Standardiseret mortalitetsratio – SMR)
- Sammenhængen mellem mortalitet og riskofaktorer blev analyseret i Poisson-modeller

Ændringer i kirurgisk strategi over tid

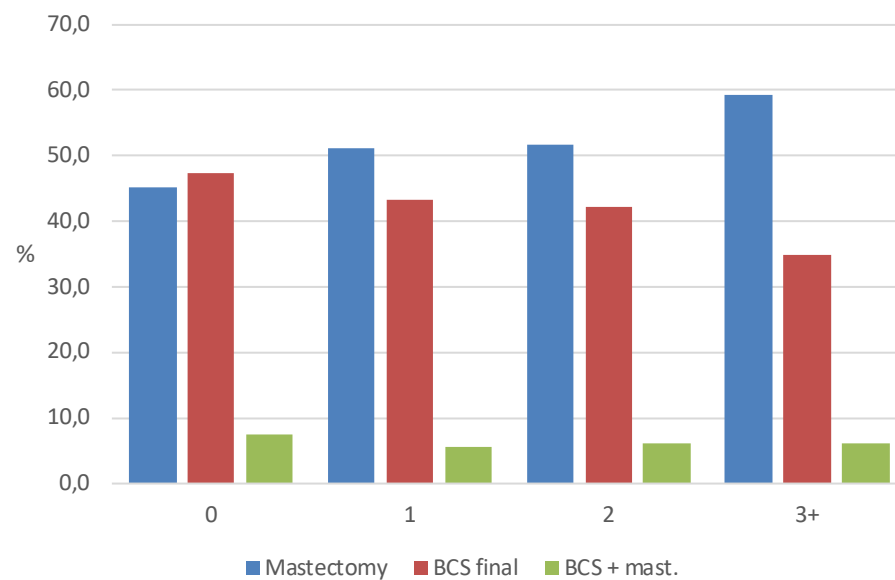


Patientkarakteristika

Surgery according to age

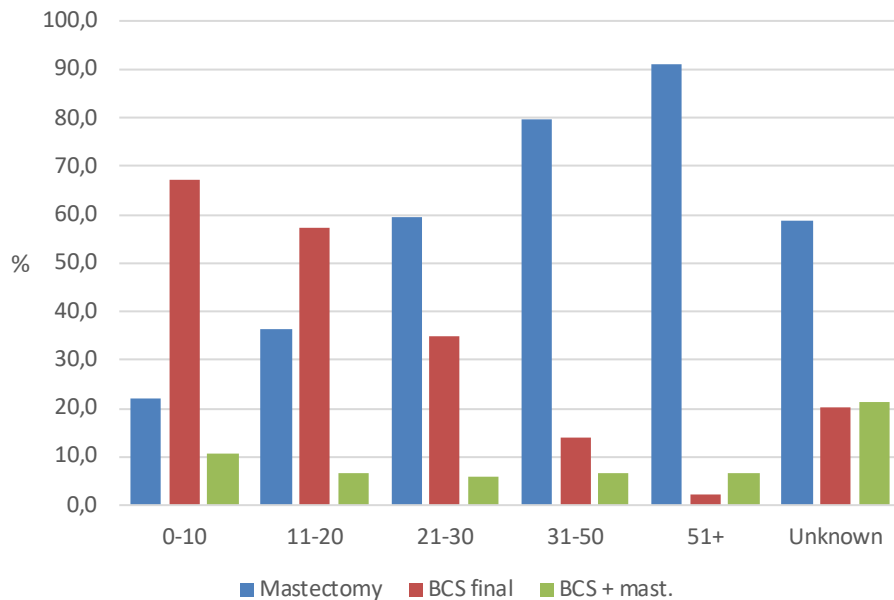


Surgery according to comorbidity

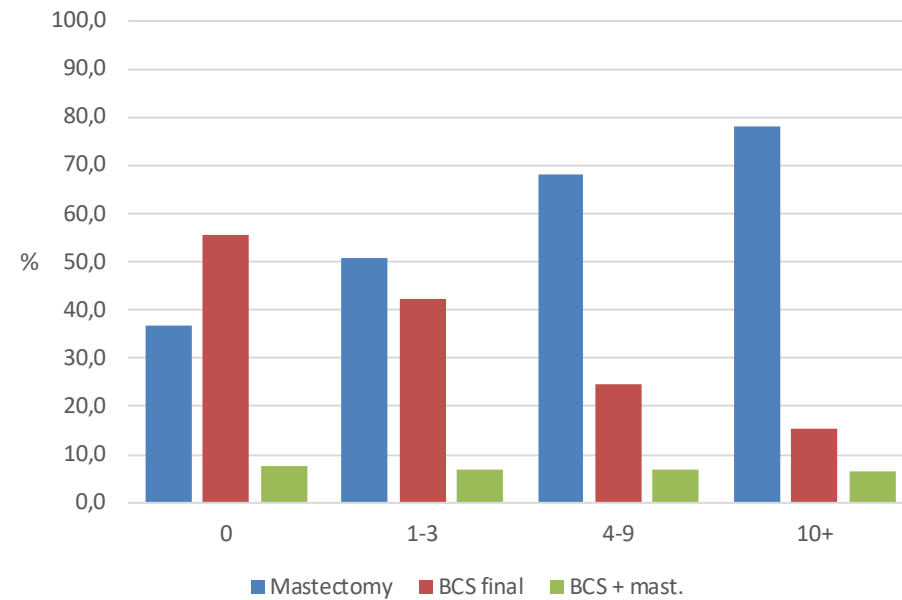


Tumorkarakteristika

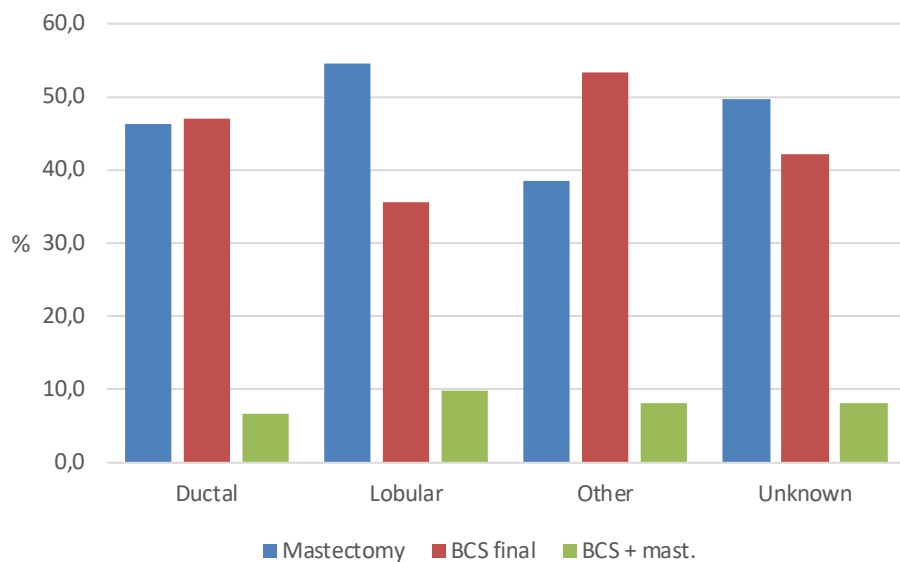
Surgery according to tumor size



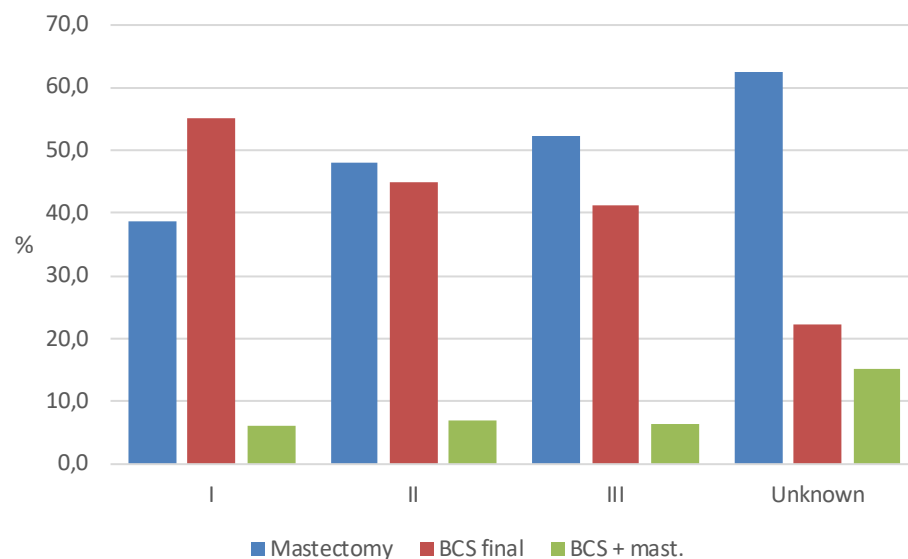
Surgery according to lymph node status



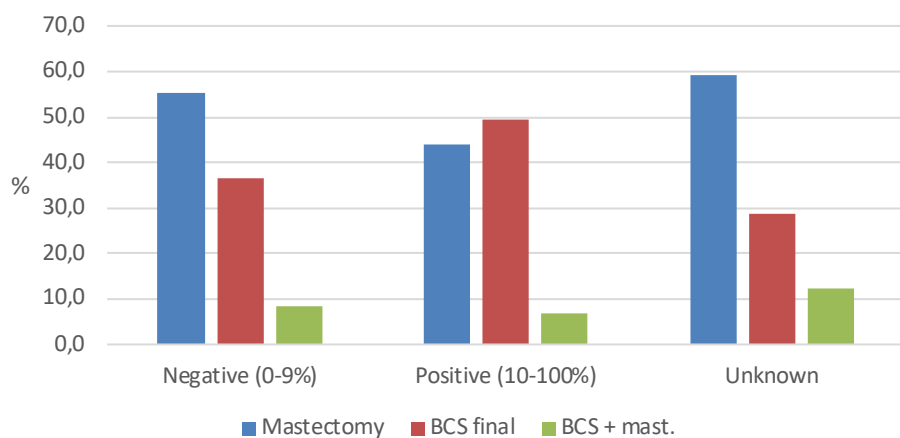
Surgery according to type



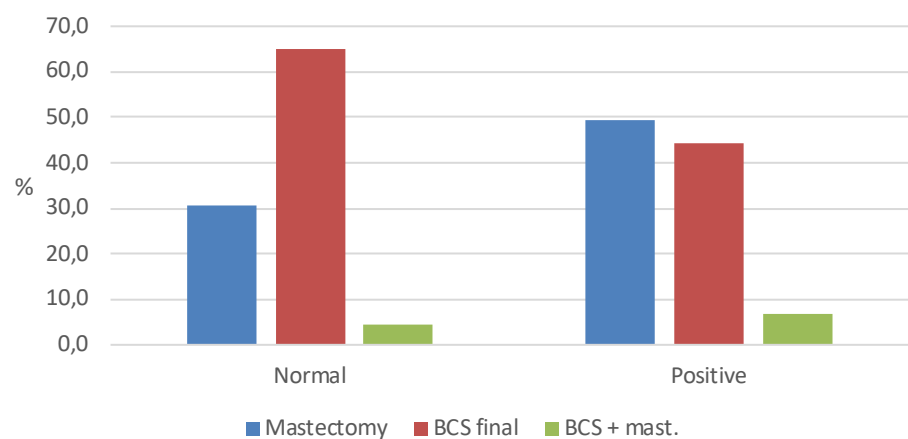
Surgery according to grade



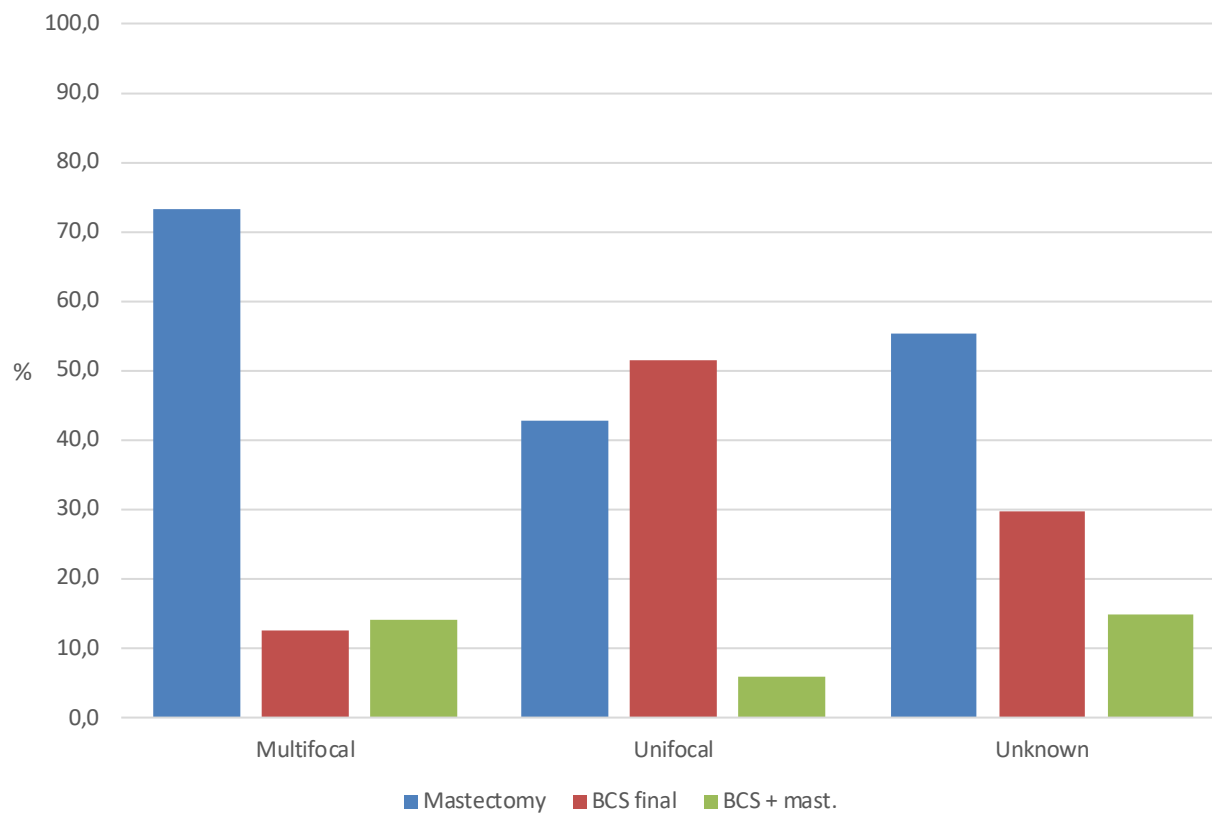
Surgery according to hormone receptor status



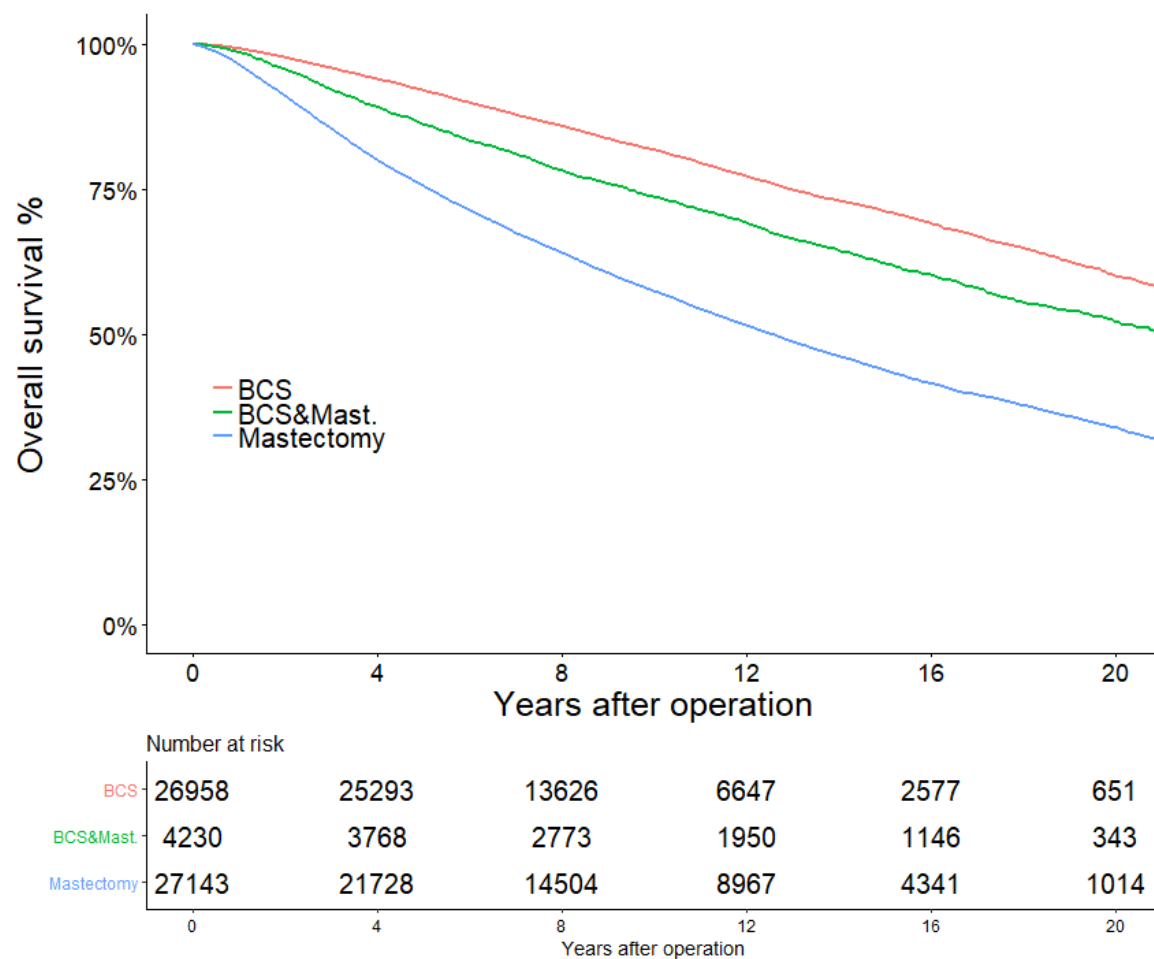
Surgery according to HER2 status

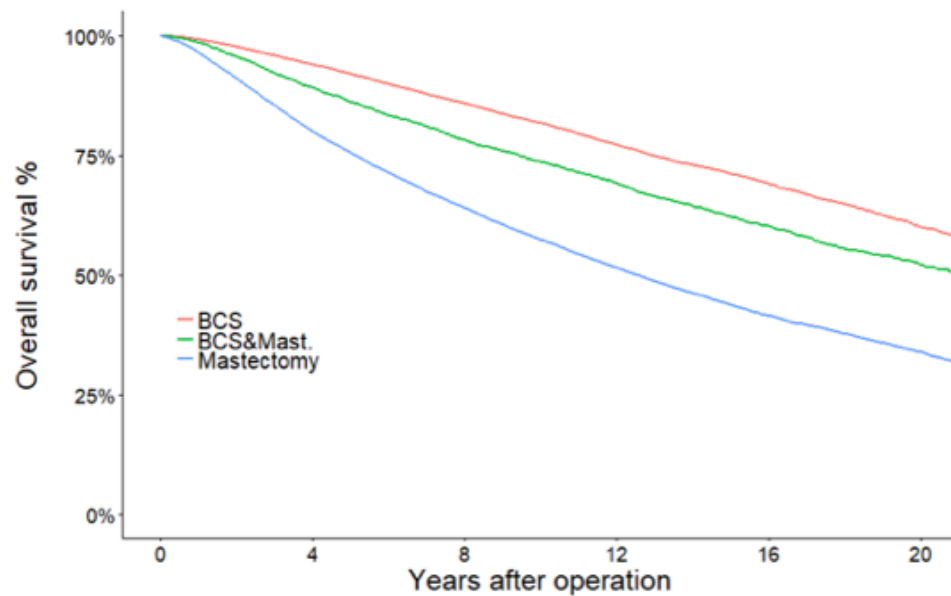


Surgery according to focality



Resultater





	Unadjusted values			
	Overall mortality		SMR	
	RR	95% CI	RR	95% CI
M (ITT) vs. BCS (ITT)	2.43	2.36-2.51	1.38	1.34-1.42
M (final) vs. BCS (final)	2.46	2.38-2.54	1.44	1.39-1.48
BCS & M vs. BCS (final)	1.51	1.43-1.60	1.28	1.21-1.36
M (ITT) vs. BCS (final)	2.64	2.55-2.72	1.46	1.41-1.50

Risikofaktorer

- Alder
- Komorbiditet (Charlson)
- Behandlingsperiode
- Tumorkarakteristik
 - Tumorstørrelse
 - Lymfeknudestatus
 - Østrogenreceptorstatus
 - HER2 status*
 - Lymfovaskulær invasion
 - Histologisk type
 - Gradering
 - Fokalitet
- Behandling
 - Strålebehandling
 - Kemoterapi
 - Endokrin behandling

Relativ risiko – justerede værdier

ITT-grupper

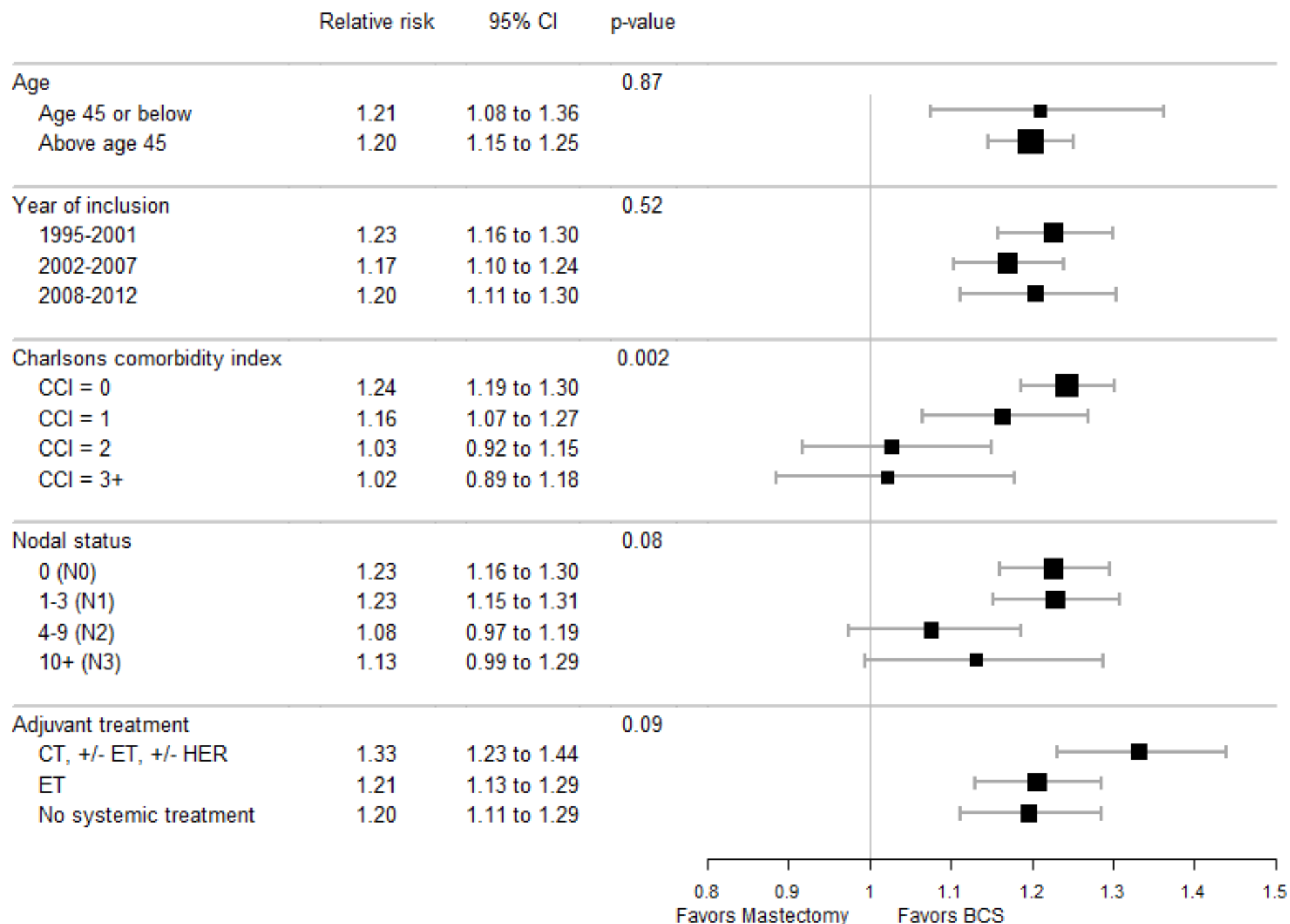
	SMR		
	RR	95% CI	p-value
Operation			< 0.0001
Mastectomy vs. BCS	1.19	1.15-1.23	
Age at operation			< 0.0001
Age at operation 18-44 vs.55-64	4.13	3.88-4.40	
Age at operation 45-54 vs.55-64	1.56	1.49-1.64	
Age at operation 65-74 vs.55-64	0.62	0.60-0.65	
Age at operation 75+ vs.55-64	0.34	0.33-0.36	
CCI			< 0.0001
CCI 1 vs. 0	1.51	1.45-1.57	
CCI 2 vs. 0	1.72	1.63-1.81	
CCI 3+ vs.0	2.53	2.37-2.69	

	SMR		
	RR	95% CI	p-value
Tumor size			< 0.0001
Tumor size 0-10 vs. 11-20* mm	0.82	0.78-0.86	
Tumor size 20-30 vs. 11-20* mm	1.19	1.15-1.23	
Tumor size 30-50 vs.11-20* mm	1.32	1.27-1.38	
Tumor size 50+ vs.11-20* mm	1.56	1.46-1.66	
Positive lymph nodes			< 0.0001
Positive lymph nodes 1-3 vs.0	1.35	1.30-1.40	
Positive lymph nodes 4-9 vs.0	2.20	2.10-2.30	
Positive lymph nodes 10+ vs.0	3.47	3.29-3.65	
Estrogen receptor (ER) status			< 0.0001
ER negative vs. positive	1.19	1.14-1.25	
ER unknown vs. positive	1.07	1.00-1.15	
Lymphovascular invasion			< 0.0001
Lymphovascular invasion yes vs. no*	1.26	1.21-1.31	
Histological type			< 0.0001
Lobular vs. ductal	0.99	0.95-1.03	
Other type* vs. ductal	0.87	0.83-0.92	
Grade			< 0.0001
Grade 2* vs. 1	1.14	1.10-1.18	
Grade 3 vs. 1	1.40	1.33-1.46	

	SMR		
	RR	95% CI	p-value
Focality			0.04
Multifocal vs. unifocal	1.04	1.00-1.09	
Unknown vs. unifocal	1.05	1.00-1.11	
Radiation therapy			< 0.0001
Unknown vs. no	1.14	1.07-1.22	
Yes vs. no	0.93	0.89-0.97	
Chemotherapy			< 0.0001
Unknown vs. no	1.94	1.79-2.09	
Yes vs. no	0.95	0.90-1.00	
Endocrine therapy			< 0.0001
Unknown vs. no	1.78	1.65-1.91	
Yes vs. no	0.84	0.81-0.88	

Multivariate risikoestimer i forhold til 'intention to treat' kirurgisk gruppe

	Adjusted values			
	Overall mortality		SMR	
	RR	95% CI	RR	95% CI
M (ITT) versus BCS (ITT)	1.21	1.17–1.26	1.19	1.15–1.23
M (final) versus BCS (final)	1.23	1.18–1.28	1.20	1.15–1.25
BCS&M versus BCS (final)	1.10	1.03–1.17	1.08	1.01–1.15
M (ITT) versus BCS (final)	1.25	1.20–1.31	1.22	1.17–1.27



Interaktion mellem kirurgi, lymfeknudestatus og strålebehandling

	Mastectomy (N)	BCS (N)	Overall mortality		SMR	
			RR	95% CI	RR	95% CI
Node negative [§]	11,469	16,658	1.46	1.38-1.54	1.28	1.22-1.36
Node positive [#] : no RT to chest wall and nodes*	3,285	836	1.32	1.18-1.48	1.27	1.14-1.42
Node positive: RT to chest wall and nodes	6,556	5,248	1.35	1.25-1.45	1.28	1.19-1.38

RR = relative risk; SMR = standard mortality rate.

[§] Including micrometastases; [#] Only macrometastases; * Residual breast irradiated after BCS.

Mulige forklaringer på de observerede forskelle

- Billeddiagnostiske fund af tæt kirtelvæv
- Udbredte mikroforkalkninger – DCIS
- Multifokalitet
- Screeningsdetektion vs. kliniske symptomer
- Størrelsen af det kirurgiske indgreb

Konklusion

- Mortaliteten (SMR) efter behandling for brystkræft i Danmark er efter justering for kendte risikofaktorer ca. 20% højere efter mastektomi i forhold til efter brystbevarende behandling
- Forskellen skyldes ikke strålebehandling



ORIGINAL ARTICLE



Breast conserving surgery versus mastectomy: overall and relative survival—a population based study by the Danish Breast Cancer Cooperative Group (DBCG)

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