

Influence of tumour stage at breast cancer detection on survival in modern times: population based study in 173 797 patients

BMJ2015; 351 doi: <http://dx.doi.org.ep.fjernadgang.kb.dk/10.1136/bmj.h4901>(Published 06 October 2015)

Cite this as: *BMJ* 2015;351:h4901

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A logical fallacy led to over-interpretation of data.

It is perfectly clear from the paper by Tilanus-Lindhorst and colleagues that breast cancer screening was available over the entire study period [1]. It is likewise very clear from my rapid response (see below) that this was a premise for my criticism, i.e. I criticize that they did not mention the change to a more sensitive screening modality over their study period. Their suggestion that a misunderstanding on my behalf is the explanation for our disagreement is therefore not correct [1].

The reason we disagree whether their conclusion that “early detection is vital” were justified is that Tilanus-Lindhorst and colleagues do not recognize a major logical fallacy in their argument. This fallacy makes them draw a very strong conclusion that cannot be substantiated by the data they present. As I have already argued (below), it is not possible to conclude that “early detection is vital” from the observation that prognosis deteriorates with later stage at detection. Indeed, this mechanism of effect for early detection is a major topic for debate in breast cancer.

Tilanius-Lindhorst and colleagues also argue that their study did not evaluate screening mammography and that my criticism of their conclusion is therefore unjustified. There are arguably four relevant tools for early detection of breast cancer, which they conclude is “vital”. As I have explained (below), increased disease awareness led to much earlier detection of breast cancer in Denmark [2], but this had no effect on breast cancer mortality which kept increasing, so this cannot be what Tilanius-Lindhorst and colleagues refer to. Regular breast self-examination is generally recommended against, as it doubles biopsy rates, with no benefit [3]. Regular clinical breast examination has just been recommended against by the American Cancer Society [4]. The only likely candidate intervention for “vital” early detection thus seems to be the Dutch breast screening programme, especially as the continued relevance of such programmes have been questioned due to improved treatment, a key component of their study question [1]. If they were in fact referring to another means to early detection of breast cancer, I am curious to hear what they were alluding to.

Tilanius-Linhorst and colleagues have not responded to my concerns. They still appear to draw conclusions far beyond what their study can justify.

1. Saadatmand S, Bretveld R, Siesling S, et al. Influence of tumour stage at breast cancer detection on survival in modern times: population based study in 173 797 patients. *BMJ*. 2015;351.
2. Rostgaard K, Vaeth M, Rootzén H, Lynge E. Why did the breast cancer lymph node status distribution improve in Denmark in the pre-mammography screening period of 1978-1994? *Acta Oncol* 2010;49:313-21.
3. Kösters JP, Gøtzsche PC. Regular self-examination or clinical examination for early detection of breast cancer. *Cochrane Database of Systematic Reviews* 2003, Issue 2. Art. No.: CD003373. DOI: 10.1002/14651858.CD003373.
4. Oeffinger KC, Fontham ETH, Etzioni R, et al. Breast cancer screening for women at average risk. *JAMA* 2015;314:1599-1614.

Competing interests: No competing interests

17 November 2015

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