

Risk of pacemaker implantation (PMI) after radiotherapy (RT) for breast cancer (BC) : a study based on French nationwide health care database sample

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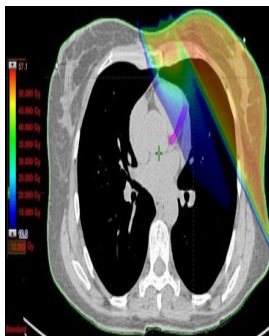
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Purpose

Radiotherapy (RT) is a major treatment for breast cancer (BC), but it is also associated with an increased long-term (>5-10 years) risk of cardiac complications. Specific data on cardiac arrhythmias and conduction disorders are warranted



Evaluate the risk of PMI after BC RT, compared with the general population and with BC patients not treated with RT

Methods

Study population

Adult women present in the EGB* with a first BC between 2008 and 2016 and followed through 2018.

* EGB: a 1/97th permanent representative sample from the whole population of the French health insurance database.



Statistical analysis

External comparison

- Evaluate the incidence of PMI in BC population compared to the general population
- ❖ SIR

Internal comparison

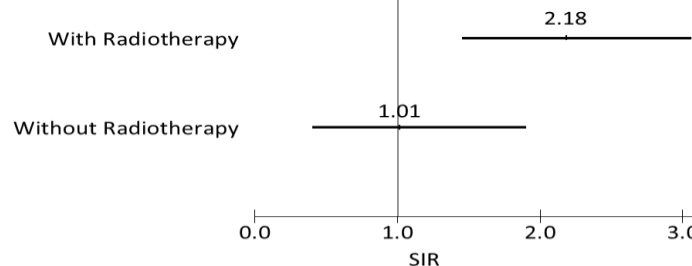
- Evaluate the risk of PMI in BC patients treated with RT with those not treated with RT
- ❖ Survival analysis

Results

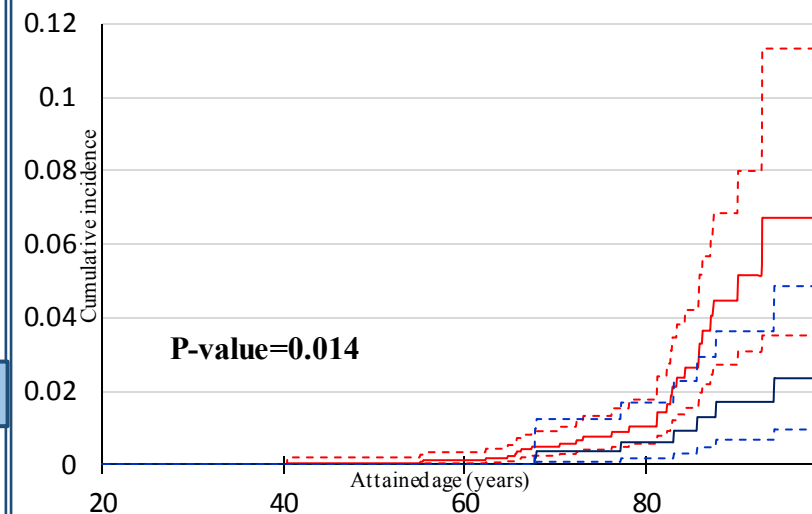


External comparison

Risk of pacemaker implantation in Breast Cancer patients treated :



Internal comparison



- An increased risk of PMI associated with RT in multivariate analysis (sd_HR=2.08 (0.87 – 4.97)).

Conclusion

Higher risk of PM implantation on BC patients receiving RT compared to the general population or BC patients without RT

