Reviewer's report

Title: Breast and other cancer dormancy as a therapeutic endpoint: speculative recombinant T cell receptor ligand (RTL) adjuvant therapy worth considering? Running title: Tumour dormancy maintenance by RTL therapy

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Reviewer: Michael Retsky

Reviewer's report:

This paper is acceptable for publication after two minor essential revisions listed below are addressed.

As authors Bakacs and Mehrishi mention, a homeostasis hypothesis has been presented that proposes when early stage breast cancer is first diagnosed, metastatic disease is very often in a dormant state but that the surgery initiates exit from dormancy. This apparently is very common in that over half of all relapses in early stage breast cancer are accelerated by surgery (1). Assuming this hypothesis is true, Bakacs and Mehrishi then present their hypothesis on a method of treatment for early stage patients aimed to prevent surgery-induced or any type of exit from dormancy (2). They propose to indefinitely prevent exit from dormancy by a recombinant T cell receptor ligand therapy that modifies T cell behavior through a partial activation mechanism. They could have presented more details but it is certainly possible that an immune based therapy could control dormancy. Given the high public concern and the large number of treatment failures in breast cancer, it is appropriate to encourage new treatment hypotheses that may prevent relapse. An hypothesis needs to explain data with a few arbitrary assumptions and needs to be testable. On that basis, the paper presents a valid hypothesis.

As they mention, if surgery induced growth could be eliminated, mammography would produce much superior results. Mammography is currently a hotly debated issue. Their description of the mammography controversy as having to choose between two life-threatening evils like Scylla and Charybdis is quite apt. It is reasonable to portray over-diagnosis and over-treatment as a possible harm from mammography, while on the other hand, if mammography is not conducted, perhaps a chance to detect and remove a tumor before it becomes more advanced and less easily treatable will be missed.

Minor Essential Revisions

There are two problems with the Bakacs and Mehrishi paper having to deal with their use of acronyms.

1. One acronym labeled TAA for tumour associated antigens is never used after the initial definition.

2. Another acronym HRT for homeostatic role of T cells would be confusing in the
breast cancer literature since hormone replacement therapy is also often called HRT. This is a general readership journal for the cancer field which covers many specialties and it would be wise to minimize the use of acronyms geared for the specialist.

References:


Declaration of competing interests: