Reviewer’s report

Title: Adjuvant breast cancer chemotherapy during late-trimester pregnancy - evidence-based standard of care, or irrational fashion?

Version: 1 Date: 6 November 2006

Reviewer: Matthew Ellis

Reviewer’s report:

The article addresses the value of adjuvant chemotherapy given during pregnancy, and the author concludes that the value and safety of such therapy has not been proven. He proposes that there is no clear data on the detriment of delaying chemotherapy until after delivery, delivering non-standard adjuvant chemotherapy may not be beneficial, ER+ breast cancer receives less benefit from chemotherapy, the effect of chemotherapy in ‘rich hormonal milieu’ of pregnancy is unknown, and that the long term adverse effects of gestational chemotherapy are unknown.

I have reviewed the article, and these are my thoughts:

1. The article is well written
2. The argument that late trimester adjuvant chemotherapy is supported by scant data is well presented.
3. This is somewhat of a ‘paper tiger’ for several reasons:
   - the decision to give adjuvant chemotherapy during pregnancy is driven by necessity, locally advanced cancers or cancers diagnosed early in pregnancy in many cases
   - this issue will never be adequately studied to provide clear guidelines, for obvious reasons
   - for women who present in the third trimester, the decision is easy enough to delay chemotherapy in the absence of a life threatening cancer. Women can undergo surgery in the third trimester, and by the time we allow for recovery from surgery, adjuvant chemotherapy can still be given in the typical 3 month window following surgery. The tougher question is in cases where we feel compelled to give chemotherapy early in pregnancy, what are the safety issues, and what is the data we have to at least counsel women regarding the trade-offs.
4. The author does not address the benefit to mother and fetus of rejecting the ‘therapeutic abortion’ approach.
5. The entire full paragraph on page seven adds little to the argument presented. The author refers to potential additional adverse consequences of gestational chemotherapy, though he does not mention similar potential downsides to delaying chemotherapy (further pregnancies may not be possible if chemotherapy is not given, recurrence, post gestational chemotherapy induced infertility, and marital problems are all potential problems with the alternative approach). The fact that many patients and physicians would opt for abortion is not an argument against gestational chemotherapy, nor is citing other authors who express concerns over the acceptance of gestational chemotherapy.
6. This topic is not necessarily of wide spread interest. The occurrence of breast cancer is pregnancy is an infrequent event, and late trimester diagnosis even less frequent, and see #3 above.
7. The conclusions suggest (A) that the tendency for oncologists to equate maternal risk with maternal plus fetal risk, (B) that immediate action is always best, and (C) that oncologists hold the interest of the client (mother) over those of a third party (the fetus) are invalid. The article only really addresses (B). Issues (A) and (C) are not really addressed by the arguments in the body of the article, and relate more to philosophy and ethics than the limited clinical trial data available. Point (B) is addressed, the value of delivering chemotherapy during pregnancy has never been proven (and likely never will be, though there are some registries trying to address this) and we are forced to extrapolate from data on the treatment of non-pregnant patients. This is unfortunately a truism, and not necessarily the subject for an argument.

If the author wanted to argue the value of maternal versus fetal health, this would be more interesting and controversial, but this is not addressed in the current article.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
'I declare that I have no competing interests