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## EDITORIAL

## Perspectives on this issue of the IJS

Putting politics on one side for a moment we must all remember that when a democratic nation goes to war it has a duty of care for the men and women under its command who are on active duty. Furthermore, according to the Geneva Convention, the same applies to the innocent civilian victims who may become part of what's euphemistically known as "collateral" damage, as well as the not so innocent combatants from the enemy side. In a way I envy the clarity of the ethical demands placed on military surgeons compared with the often messy ethical dilemmas faced by the majority of us dealing with the degenerative diseases, the disease of poor lifestyle choices and of course cancer in the aged and infirm.

The editorial in this issue by Thomas Beaver and Paul Schenarts serving with the US army medical Corp in Iraq and Afghanistan makes for sobering reading yet at the same time is cause for celebration of the organizational and technical skills involved in carrying out such complicated work in conditions unlike the ivory towers back home. Their results are phenomenal and with each passing conflict have improved over time. If nothing else we hope their experiences carry over to the resuscitation and intensive care of civilian patients who require major surgery for cancer and the chronic conditions of ageing. However, there's the rub, battlefield injuries affect fit young men with fully intact mechanisms for healing triggered at the molecular level following trauma. Most of our patients have their healing responses impaired by age or co-morbidity and for some the suite of genes activated following surgical trauma might not be so welcome!

A very challenging paper by Retsky et al. follows the paper on military surgery and sets out to blame the act of surgery for the progression of latent breast cancer into an active and potentially lethal disease. These straws have been in the wind for several years.<sup>1,2</sup> Folkman<sup>3</sup> has reported many examples of dormant micrometastases in animal

models. Within the dormant micrometastases there is balance between growth and apoptosis. There is also a balance of factors that inhibit or stimulate angiogenesis. To maintain a dormant state, inhibiting factors locally dominate. If stimulating factors are increased or inhibiting factors are reduced the dormant condition can no longer be maintained. Thus a likely trigger for 'kick-starting' the growth of a dormant cancer could be the act of surgery itself.

These phenomena suggest a nonlinear dynamic model for breast cancer, which, like a chaotic system, is exquisitely sensitive to events around the time of diagnosis.<sup>2</sup> Clearly a new model for breast cancer is needed that takes into account the fine dynamic balance between the tumour and the host, including various autocrine and paracrine factors which influence proliferation, apoptosis and angiogenesis. The perioperative phase around the time of breast cancer surgery might provide a new window of opportunity to better the results we are seeing at present.

### References

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