Commentary: Topical therapy for mesothelioma—Why not?

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Central Message

A topical treatment for mesothelioma may be just around the corner. It is still early, however.

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If ever there was a problem that needs a solution, it is mesothelioma. We have been wandering in the dark ages of treatment for perhaps the last quarter century without clear direction or promising intervention. During this epoch, the concept of maximal cytoreductive surgery has been championed but still remains relatively untested. Quite to the contrary is the belief that a less cytoreductive option—pleurectomy and decortication—provides, at worst, palliation similar to that of extrapleural pneumonectomy, with significant sparing of morbidity, and this option currently assumes the role of preferred surgical therapy for appropriate candidates.

Mesothelioma is a relatively unusual solid organ tumor for which current treatment strategies principally focus on *local* control, as opposed to systemic treatment, despite the clear understanding that local control alone is *not* curative. Perhaps this has become the focus because of lack of a strong systemic option, or the belief that systemic involvement occurs very late in the disease course. Perhaps more importantly, however, local disease presents with significant respiratory debility, and the mechanical issues affecting the respiratory system can themselves become major contributors to patient demise.

So, is there a holy grail for local control? Recently, we heard about preoperative, short-course, hemithorax radiotherapy as a prelude to extrapleural pneumonectomy having surprisingly good intermediate-term results.¹ And now, in this issue of the *Journal*, Opitz and colleagues² report on a *topical* adjuvant therapy that seems very well tolerated and might also improve local control!

This notion of a concomitant topical treatment at the time of surgical debulking is nothing particularly novel, although the mode of delivery demonstrated here is clearly the star of the show. Heated chemotherapy infusion for malignant

pleural mesothelioma dates back to the turn of the century (this century) and is accompanied by significant collateral damage, as one might imagine. But the idea was clear—avoid even worse systemic toxicity by third-space lavage and hope that the degree of absorption is great enough to effect a cytotoxic response from the residual tumor mass.

But a topical gel that works would be an enormous breakthrough! Now, it is very early in the game, and the treatment cohort is very small, but the safety profile of this fibrin-cisplatin gel, when applied to the pleural service after pleurectomy and decortication, seems promising in this phase I trial. Unfortunately, and as is always the case, between phase I trial and clinical practice stands a chasm as wide as the Grand Canyon, but wouldn't it be grand if this gel actually works.

Reference

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