

APPENDIX B

DRAMATIC RESPONSES TO VAE THERAPY

Understanding Tumor Lysis, Pseudo Progression, and Allergy Potential

Tumor Lysis and Pseudo Progression

Tumor lysis syndrome and *pseudo progression* are two dramatic treatment responses that can occur in the presence of VAE therapy.

Tumor lysis syndrome has been referred to as a state in which

tumor cells release their contents into the bloodstream, either spontaneously or in response to therapy, leading to the characteristic findings of hyperuricemia, hyperkalemia, hyperphosphatemia, and hypocalcemia. These electrolyte and metabolic disturbances can progress to clinical toxic effects.¹

Tumor lysis syndrome indicates that the tumors have been severely stressed by the therapy and subsequent immune system activities. However, we do need to stabilize and slow the tumor destruction in that situation, because of the potential for severe toxicity. The tumor destruction is good, we just don't want too much too fast. We need to harness and manage this response. If signs of tumor lysis syndrome occur, we pause VAE therapy and restart at a lower dose.

Pseudo progression refers to an increase in the size of the primary tumor or the appearance of a new lesion, as seen on scans, ultimately followed by tumor regression. It is a common response to immunotherapies, including VAE therapy. Pseudo progression is actually good; it is a sign that the immune system is highly active at the tumor site.

This is a normal therapeutic response, not an undesired reaction or side effect. However, it can be disturbing for the patient and conventional oncology team if they see such a response on scans. For this reason, it is best to avoid scans for six to eight weeks after the start of VAE therapy. After that time period, the typical regression phase begins.

Allergies and Other Precautions

As noted in chapter 2, latex, banana, avocado, kiwi, and chestnuts have lectin structures similar to those found in mistletoe extract. However, cross-reactive allergy is extremely rare. Both the Anamnestic Form and MD Anderson Prognostic Scoring System (see appendices C and D) screen for allergy concerns. Additionally, all VAE therapy practitioners should provide a skin prick and intradermal test at initiation of treatment.

VAE therapy is highly nuanced and must be personalized. Trained mistletoe practitioners understand how to address allergy potential, manage cytokine release syndrome, and provide appropriate therapeutic alternatives when mistletoe is contraindicated. Practitioners who wish to learn more about these topics should connect with the Physicians' Association for Anthroposophic Medicine (PAAM, see Resources) and attend a PAAM-sponsored mistletoe therapy training.