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Response:

Etanercept for idiopathic pneumonia syndrome

We appreciate Dr Frangoul's comments regarding long-term survival of the patients reported in our article.[1] Idiopathic pneumonia syndrome (IPS) remains a leading cause of treatment-related mortality, with one-month mortality rates approaching 80%. The goal of our study was to determine whether tumor necrosis factor (TNF) inhibition with 4 weeks of etanercept therapy could overcome the short-term risk of death. In our study, short term mortality was reduced to 27%. Responders to etanercept therapy exhibited a median survival of 217 days (range, 46-≥1424), compared with 17 days (range, 4-55) for nonresponders. Because our trial was not designed to determine whether etanercept treatment improves long-term survival, we can only speculate on why no obvious improvement in long term survival was observed. Graft-versus-host disease (GVHD), another process in which TNF plays a critical role, was a major contributor to subsequent mortality in our study population. We observed transient responses in GVHD in several patients receiving study therapy. It is possible that a longer course of etanercept might have favorably impacted long-term survival, as shown in a recent study of etanercept for the treatment of acute GVHD.[1]

As discussed in the body of the text, we believe the current pilot study represents an example of translational research wherein laboratory insights using established animal models of human disease were directly transformed into a novel treatment strategy for a frequently fatal clinical complication. Our data demonstrate that the addition of etanercept to standard dose corticosteroids and supportive care measures is associated with encouraging response rates, reductions in systemic and pulmonary inflammation, and an acceptable toxicity profile. Based upon these favorable results, a phase 2 pediatric trial through the Children's Oncology Group (COG) and the Pediatric Blood and Marrow Transplant Consortium (PBMTC), and a phase 3, randomized, placebo controlled, trial through the BMT Clinical Trials Network (BMT CTN) are currently in progress. In each, the impact of TNF inhibition on both short- and long-term survival after IPS will be examined.

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Conflict-of-interest disclosure: The authors declare no competing financial interests.

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