GvHDHub

cGvHD

Comparison of the original and the revised NIH chronic graft-versus-host disease scoring criteria

Anna Bartus | Aug 15, 2018

Ana Zelic Kerep from the Experimental Transplantation and Immunology Branch, Center for Cancer Research (CCR), National Cancer Institute (NCI), National Institutes of Health (NIH), Bethesda, MD, USA, and colleagues compared the revised 2014 NIH chronic graft-versus-host disease (cGvHD) severity scoring criteria to the 2005 NIH cGvHD criteria in order to assess the impact of changes to the original NIH cGvHD guideline. The study was published ahead of print on 8 August 2018 in *Bone Marrow Transplantation*.

Patient characteristics:

- N = 284 patients with severe and heavily pre-treated cGvHD were prospectively enrolled in the National Cancer Institute's cross-sectional cGvHD natural history study
- Median age: 46 years (range, 19–71)
- Disease:
  - Acute leukemias and myelodysplasia: 49%
  - Myeloproliferative diseases: 12%
  - Chronic lymphocytic leukemia: 7%
  - Hodgkin and non-Hodgkin lymphomas: 24%
  - Multiple myeloma: 3%
  - Aplastic anemia, PNH: 3%
  - Other: 2%
- cGvHD onset
  - Progressive: 34%
  - Quiescent: 32%
  - *De novo*: 33%
  - Unknown: 1%

Key findings:

- Frequency of severe global cGvHD based on the 2005 and 2014 NIH criteria: 75% (n = 213) *vs* 72% (n = 203), $P = 0.0009$

- NIH liver involvement score of 0 with no organ involvement was observed in patients based on the 2005 or 2014 NIH criteria: 50% *vs* 89% respectively, $P < 0.0001$
- NIH lung involvement score of 0 with no organ involvement was observed in patients based on the 2005 or 2014 NIH criteria: 23% *vs* 45%, $P < 0.0001$
- 2005 and 2014 NIH global severity scores significantly associated with
  - Reduced grip strength, $P < 0.0001$
  - Reduced joint range of motion, $P = 0.0003$
  - The subspecialist evaluation score, $P < 0.0001$
- The 2005 and 2014 NIH lung score was significantly associated with a reduced 2-minute walk, Short Form 36 physical component score, human activity profile maximum and activity-adjusted scores, $P < 0.0001$
- The 2005 and 2014 NIH joints and fascia score was significantly associated with reduced grip strength, range of motion, and Short Form 36 physical component score, $P < 0.0001$

In conclusion, this study showed that the revised 2014 NIH cGvHD staging criteria presented milder organ involvement scores for liver and lung involvement, which resulted in overall milder global scores. The authors added that “this score shift could, in some cases, steer the clinician toward less-aggressive therapy.” They further stated that “the 2014 NIH cGvHD scoring criteria in continuing efforts to develop better classification systems more firmly encompassing the biological heterogeneity of this disease.”

References

1. Kerep A.Z. *et al*. Impact of the 2014 NIH chronic graft-versus-host disease scoring criteria modifications assessed in a large cohort of severely affected patients. Bone Marrow Transplant. 2018 Aug 8. DOI: 1038/s41409-018-0224-3. [Epub ahead of print].