



This is a repository copy of *Hyperferritinaemia and EBV viraemia are poor predictors of HLH post allogeneic stem cell transplantation*.

White Rose Research Online URL for this paper:
<http://eprints.whiterose.ac.uk/145106/>

Version: Accepted Version

Proceedings Paper:

Chia, S., Wright, J., Raza, M. et al. (1 more author) (2019) Hyperferritinaemia and EBV viraemia are poor predictors of HLH post allogeneic stem cell transplantation. In: British Journal of Haematology. 59th Annual Scientific Meeting of the British Society for Hematology, 01-03 Apr 2019, Glasgow, UK. John Wiley & Sons Ltd , p. 67.

<https://doi.org/10.1111/bjh.15854>

This is the peer reviewed version of the following article: Chia, S., Wright, J., Raza, M., Morley, N., Hyperferritinaemia and EBV viraemia are poor predictors of HLH post allogeneic stem cell transplantation, Br J Haematol, 185: 67-67, which has been published in final form at <https://doi.org/10.1111/bjh.15854>. This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Use of Self-Archived Versions.

Reuse

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



eprints@whiterose.ac.uk
<https://eprints.whiterose.ac.uk/>

BSH2019

General Haematology

BSH2019-481

Hyperferritinaemia and EBV viraemia are poor predictors of HLH post allogeneic stem cell transplantation.

Sue Chia¹, Josh Wright¹, Mohammad Raza², Nick Morley¹

¹Haematology, ²Virology, Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield, United Kingdom

Please indicate your preferred method of presentation: Poster

Has this abstract been presented at a British Haematology meeting before?: No

Has this abstract been presented at an overseas meeting?: No

Please select your position from the list.: Consultant

Abstract Content: With increasing recognition of the phenomenon of Haemophagocytic Lymphangiohistiocytosis (HLH) and uncertainty around the role of Epstein Barr Virus infection within this scenario we performed a retrospective analysis of all patients within our institution, a large teaching hospital and bone marrow transplantation centre covering a population c. 2 million, who were found to have both a serum Ferritin > 1,000 ug/L and an Epstein Barr Virus (EBV) viraemia > 10,000 copies per ml over the calendar year of 2017. Information collected included underlying diagnosis, immunosuppressive therapy and HLH2004 criteria.

A total of 19 patients were identified, median age 58 years (Range 23-74), M=12 F=7. Underlying diagnosis was a haematologic malignancy in 16, all of whom had received an allogeneic transplant and one each of alcoholic liver disease, renal transplant and metastatic breast cancer (untreated). These patients had a median Ferritin of 6082 ug/L (Range 1562-9994) and a median EBV viral load 38,000 copies per ml (Range 10,700 – 977,200).

11/19 patients were on ongoing immune suppressant therapy. Reviewing the HLH2004 criteria, 4 patients had fevers, 2 patients had splenomegaly, 2 or more cytopaenias were seen in 11, 2 patients had elevated triglycerides, no patients had low fibrinogen, 9 patients had a bone marrow biopsy performed with features of HLH seen in one. NK cell levels were not tested nor were soluble CD25 levels. A median of 2 HLH2004 criteria were met (range 1-4). Consideration of a diagnosis of HLH was documented in only three cases. 8 patients died 0-9 months following the peak viral load of EBV infection.

Diagnosing HLH following allogeneic SCT is not straight forward with many of the features of HLH attributable to other causes. In this case series we have used a serum Ferritin > 1,000 ug/L as a screening marker but this is a questionable practise as Ferritin is often elevated as an acute phase response protein for other reasons. The role of EBV viraemia in this setting also remains unclear but at the least is a marker of underlying immune suppression. One thing is clear though and that is that these patients have a poor prognosis with 8/19 (42%) surviving less than a year. Further work is urgently needed to refine predictive scores for HLH in this complex patient group and to identify novel diagnostic markers.

Disclosure of Interest: None Declared

Keywords: EBV, Ferritin, HLH, transplant