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Efficacy of Axatilimab in the Management of Chronic Graft-Versus-Host Disease

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INTRODUCTION

Chronic graft versus host disease (cGVHD) is a major cause of late non-relapse morbidity and subsequent mortality in patients with allogeneic hematopoietic stem cell transplant (HSCT). Despite various treatment options, therapy failure is common which highlights the necessity for exploration of newer therapies. This systematic review aims to evaluate the efficacy of axatilimab, a monoclonal antibody that inhibits Colony-stimulating factor 1 receptor (CSF-1R), in managing refractory cGVHD.

METHOD

We conducted a systematic review per PRISMA Statement 2020 guidelines and included 3 studies after searching 5 major databases, PubMed, Cochrane, Medline, Embase, and Clinicaltrials.gov. Inter-study variance was calculated, and a pooled analysis was performed using the 'meta' package by Schwarzer et al. in the R programming language (version 4.16-2).

RESULTS

> A total of 292 patients from three studies were included for this systematic review and metaanalysis.

>The median age of the included patients was 58 (16-73) years. 63% of the patients were male (184/292).

>The median time from cGVHD to first dose of axatilimab was 3.57 years.

>The median time to response was 6 weeks (4.5-12).

> One study reported that more than 50 % of patients maintained a response for greater than 12 months.

> Response rate in Esophagus, musculoskeletal and skin were 74%, 67%, and 26% respectively

> The gastrointestinal tract exhibited the most favorable response, whereas the eyes and skin showed modest improvement.

Outcomes	Pooled Incidence	95% CI	P value
Pooled Overall Response	64%	0.58-0.69	0.86
7 Point Improvement in LEE score	49%	0.42-0.56	0.47
Drug Discontinuation due to TRAE	16%	0.12-0.20	0.94

SIDE EFFECTS	Pooled Incidence	95% CI	P value
AST Elevation	35%	0.30-0.41	0.42
CPK Elevation	34%	0.29-0.40	0.45
Amylase elevation	20%	0.16-0.26	0.31

CONCLUSIONS

In this systematic review, axatilimab exhibited promising therapeutic outcomes for refractory cGVHD based on the findings from Phase I and II clinical trials, with an acceptable safety profile. However, prospective clinical trials with randomization are needed to consolidate these findings.

CONTACT INFORMATION

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