



Should tocilizumab be used in the treatment of COVID-19?

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This rapid review summarizes the available evidence on the efficacy and safety of tocilizumab in treating patients with COVID-19. This may change as new evidence emerges.

KEY FINDINGS

There is insufficient evidence to conclude on the efficacy and safety of tocilizumab for COVID-19. Although some benefit for patients with severe COVID-19 has been noted, more well-designed prospective clinical trials or observational studies are needed.

- Tocilizumab (Actemra/RoActemra) is an immunosuppressive drug currently used for treating various forms of arthritis.
- As patients with severe COVID-19 pneumonia typically exhibit systemic hyperinflammation and elevated inflammatory markers, tocilizumab has been proposed as one possible treatment for COVID-19 patients.
- There are no available randomized clinical trials yet on tocilizumab for COVID-19. Current available evidence comes from one observational study. Seven (7) clinical trials are ongoing.
- Tocilizumab is recommended by Chinese clinical guidance; no recommendation from WHO
- Current evidence for the efficacy and safety of tocilizumab for COVID-19 is not conclusive. Although some benefit for patients with severe COVID-19 has been noted, more well-designed prospective clinical trials or observational studies are needed.

RESULTS

There are still no completed randomized clinical trials on the topic. Current evidence comes from 1 unpublished case series from China [10], 1 case report from United States [11]. Seven clinical trials are ongoing (3 China, 2 Italy, 1 Denmark, 1 Multi-country).

In a case series involving 21 severe COVID-19 cases in China, tocilizumab resulted in normalization of body temperature (n = 21), lymphocyte counts in 10/19 patients and CRP levels in 17/18 patients on day 5, improvements in lung CT scans and pulmonary function in 19/21 patients. Average time of hospitalization after tocilizumab dose was 13.5 days. No serious adverse events were noted. This study had a high risk of bias.

Tocilizumab has also been tried to treat a 56-year-old ESRD patient with ARDS and septic shock. Final outcomes were not yet available.

Chinese guidelines state that tocilizumab treatment can be tried for patients with extensive lung lesion and severe patients with elevated IL-6 levels, but not for those with active infections (e.g., tuberculosis) [12]. WHO does not have any recommendation regarding tocilizumab use for COVID-19 [13].

CONCLUSION

There is insufficient evidence to conclude on the efficacy and safety of tocilizumab for COVID-19. Although there are some studies demonstrating benefit from using this drug among patients with severe COVID-19, more well-designed prospective clinical trials or observational studies are needed.

Declaration of Conflict of Interest

No conflict of interest

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