

Hyperbaric oxygen therapy for Crohn's disease complications: What do we know? –Authors' reply

CA Lansdorp and RA van Hulst

United European Gastroenterology
Journal

0(0) 1–2

© Author(s) 2020



Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/2050640620945090

journals.sagepub.com/home/ueg



We want to thank Parra et al. for their interest in our article “Wound healing of metastatic perineal Crohn's disease using hyperbaric oxygen therapy: A case series”, and for sharing their experience with the treatment of patients with therapy-refractory Crohn's disease (CD) complications.^{1,2}

In their letter, the authors explain that the use of adjunctive hyperbaric oxygen (HBO) therapy is not a novel therapeutic strategy and that it has been used in therapeutic algorithms for more than a decade. Indeed, the use of HBO in inflammatory bowel disease (IBD) has been reported as early as 1989, and an emerging amount of scientific evidence is available.^{3,4} For biopsy-proven metastatic CD, however, the use of HBO had only been reported once before.³

Although there is an increase in published studies about the therapy and its effects, HBO is not (yet) an established indication for IBD, neither in Europe nor in the USA.^{5,6} In current practice, its application mostly remains at the discretion of the treating physician and the availability of hyperbaric chambers. One of the underlying reasons for this is the quality of the current evidence: a substantial proportion of studies that have been published have a small sample size and a high risk of bias.⁴ The authors state in their letter that it would be ethically questionable to add a control group to a study because patients with an aggressive condition and limited therapeutic options would be denied a possibility of treatment with HBO. Performing (sham) controlled trials using HBO can indeed be challenging (though not impossible), but high-quality research is necessary precisely to make sure that the treatment is available for those patients that might benefit from it.⁷

We would like to thank the authors for their suggestion of performing a subsequent study on metastatic CD and HBO; a multicentre or international approach

could indeed result in the required sample size. The HOT-TOPIC trial that the authors refer to has been executed as a first step in expanding the knowledge about HBO for perianal fistulas in CD; its short-term outcomes will be submitted for publication in the near future.⁸

ORCID iD

CA Lansdorp <https://orcid.org/0000-0001-9395-4003>

References

1. Lansdorp CA, Buskens CJ, Gecse KB, et al. Wound healing of metastatic perineal Crohn's disease using hyperbaric oxygen therapy: A case series. *United European Gastroenterol J* 2020; 2050640620934915.
2. Parra RS, Feitosa MR and Féres O. Hyperbaric oxygen therapy for Crohn's disease complications: What do we know? *United European Gastroenterol J* 2020
3. Brady CE 3rd, Cooley BJ and Davis JC. Healing of severe perineal and cutaneous Crohn's disease with hyperbaric oxygen. *Gastroenterology* 1989; 97(3): 756–760.
4. Dulai PS, Gleeson MW, Taylor D, et al. Systematic review: The safety and efficacy of hyperbaric oxygen therapy for inflammatory bowel disease. *Aliment Pharmacol Ther* 2014; 39(11): 1266–1275.
5. Mathieu D, Marroni A and Kot J. Tenth European Consensus Conference on Hyperbaric Medicine: Recommendations for accepted and non-accepted clinical indications and practice of hyperbaric oxygen treatment. *Diving Hyperb Med* 2017; 47(1): 24–32.

Amsterdam UMC, location AMC, Department of Anaesthesiology/
Hyperbaric Medicine, Amsterdam, the Netherlands

Corresponding author:

CA Lansdorp, Amsterdam UMC, location AMC, Department of
Anaesthesiology/Hyperbaric Medicine, location H1-158, PO Box 22700,
1100 DE Amsterdam, the Netherlands.
Email: n.lansdorp@amsterdamumc.nl

6. Moon RE. *Hyperbaric oxygen therapy indications*. North Palm Beach: Best Publishing Company, 2019.
7. Lansdorp CA and van Hulst RA. Double-blind trials in hyperbaric medicine: A narrative review on past experiences and considerations in designing sham hyperbaric treatment. *Clin Trials* 2018; 15(5): 462–476.
8. Lansdorp CA, Gecse KB, Buskens CJ, et al. Hyperbaric oxygen therapy for the treatment of perianal fistulas in Crohn's disease (HOT-TOPIC): Study protocol of a prospective interventional cohort study with one-year follow-up. *Undersea Hyperb Med* 2019; 46(1): 45–53.