



**ISCO3 compilation of the papers published on the use of O<sub>2</sub>/O<sub>3</sub> in the treatment /prevention of COVID-19.**

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Original papers with OUTCOMES (new entry are highlighted in red):

I. Factor	Paper
3.943	[9 patients vs 9 control, MAH 200 mL: 40 µg/mL 2 a day for 4 days; shorter mean time to clinical improvement] <b>1. Alberto Hernández, Montserrat Viñals, Ascunción Pablos, Francisco Vilás, Peter J Papadakos, Duminda N Wijeyesundera, Sergio D Bergese, Marc Vives. Ozone therapy for patients with COVID-19 pneumonia: Preliminary report of a prospective case-control study. <i>Int Immunopharmacology</i> 2021. 90: 10726. CLINICAL TRIAL REGISTRATION NUMBER: NCT04444531. <a href="https://www.sciencedirect.com/science/article/pii/S1567576920337280">https://www.sciencedirect.com/science/article/pii/S1567576920337280</a></b>
3.943	[30 patients vs 30 control, RiO3 150 mL 40 µg/mL 2 a day + MiAH 3 blood + 5 mL O <sub>2</sub> 25 µg/mL for 10 days] <b>2. Mili Shah, Jignasha Captain, Vidyadhar Vaidya, Arvind Kulkarni, Kedar Valsangkar, Pradeep M K Nair, Gayatri Ganu Safety and efficacy of ozone therapy in mild to moderate COVID-19 patients: A phase I/II randomized control trial (SEOT study). <i>Int Immunopharmacol</i> 2020 Dec 23;91:107301. doi: 10.1016/j.intimp.2020.107301. <a href="https://pubmed.ncbi.nlm.nih.gov/33421928/">https://pubmed.ncbi.nlm.nih.gov/33421928/</a></b>
3.943	[48 patients vs 44 control, MiAH 200 blood + O <sub>2</sub> 40 µg/mL for 3 days] <b>3. Emanuela Sozio, Amato De Monte, Giovanni Semmann, Flavio Bassi, Davide Sacchet, Francesco Sbrana, Andrea Ripoli, Francesco Curcio, Martina Fabris, Stefania Marengo, Daniele Italiani, Daniela Luciana Boccalatte-Rosa, Carlo Tascini, CORMOR study Group. CORonavirus-19 mild to moderate pneumonia Management with blood Ozonization in patients with Respiratory failure (CORMOR) multicentric prospective randomized clinical trial. <i>Int Immunopharmacol</i> 2021 Jun 12;98:107874. doi: 10.1016/j.intimp.2021.107874. <a href="https://pubmed.ncbi.nlm.nih.gov/34186281/">https://pubmed.ncbi.nlm.nih.gov/34186281/</a></b>
3.380 Cite Score: 5.1	[Series Case (50 cases), Mayor Auto hemotherapy 100-200 mL, 45 µg/mL, 5 sessions] <b>4. Marianno Franzini, Luigi Valdenassi, Giovanni Ricevuti, Salvatore Chirumbolo, Markus Depfenhart, Dario Bertossi, Umberto Tirelli. Oxygen-ozone (O<sub>2</sub>-O<sub>3</sub>) immunocellular therapy for patients with COVID-19. Preliminary evidence reported. <i>International Immunopharmacology</i> 2020 August 8, 88: 106879. <a href="https://pubmed.ncbi.nlm.nih.gov/32795898/">https://pubmed.ncbi.nlm.nih.gov/32795898/</a></b>
2.322	[30 patients treated with MAH 200 mL O <sub>2</sub> 200 mL 40 µg/mL vs control group n=30 / Improvement was found] <b>5. Carlo Tascini, Giovanni Semmann, Alberto Pagotto, Emanuela Sozio, Chiara De Carlo, Alessandro Giacinta, Francesco Sbrana, Andrea Ripoli, Nadia Castaldo, Maria Merelli, Barbara Cadeo, Cristiana Macor, Amato De Monte. Blood ozonization in patients with mild to moderate COVID-19 pneumonia: a single centre experience. <i>Internal and Emergency Medicine</i>. 2020 Nov. 1 <a href="https://doi.org/10.1007/s11739-020-02542-6">https://doi.org/10.1007/s11739-020-02542-6</a></b>
2.8	[18 cases, 2 mayor auto hemotherapy a day for 4 days. Full text available in ISCO3 library]. <b>6. Hernández A, Viñals M, Pablos A, Vilás F, Papadakos PJ, et al. (2020) Ozone Therapy for Patients with SARS-COV-2 Pneumonia: A Single-Center Prospective Cohort Study. <i>Insights Biomed</i> Vol.5 No.4:13</b>
2.049 H index 111 Cite Score: 4	[Case Report (2 cases)] <b>7. Z, Zheng, Dong M, and Hu K. 'A Preliminary Evaluation on the Efficacy of Ozone Therapy in the Treatment of COVID-19'. <i>Journal of Medical Virology</i>. J Med Virol, 21 May 2020. <a href="https://doi.org/10.1002/jmv.26040">https://doi.org/10.1002/jmv.26040</a></b>
2.021	[Ozone-autohemotherapy group (14) and control group (14)] <b>8. Fabio Araimo, Carmela Imperiale, Paolo Tordiglione, Giancarlo Ceccarelli, Cristian Borrasso, Francesco Alessandri, Letizia Santinelli, Giuseppe Pietro Innocenti, Claudia Pinacchio, Vera Mauro, Gregorio Egidio Recchia, Serena Zancla, Andrea Calò, Roberto Poscia, Franco Ruberto, Gabriella D'Ettoire, Federico Bilotta, Claudio Mastroianni, Francesco Pugliese. Ozone as Adjuvant Support in the Treatment of COVID-19: A Preliminary Report of Probiozoid Trial. <i>J Med Virol</i>. 2020 Oct 28. doi: 10.1002/jmv.26636. Online ahead of print.</b>
0.49, H-index 6 SJR 0.18	[Case Report (25 cases vs historical control), SSO3] <b>9. Schwartz A, Martínez-Sánchez G, de Lucia AM, Viana SM, Constanta AM (2021) Complementary application of the ozonized saline solution in mild and severe patients with pneumonia COVID-19: A non-randomized pilot study. <i>J Pharm Pharmacogn Res</i> 9(2): 126-142. <a href="https://jppres.com/jppres/pdf/vol9/jppres2091_9_2_126.pdf">https://jppres.com/jppres/pdf/vol9/jppres2091_9_2_126.pdf</a></b>
0.19	[Case Report (1 case) Major Autohemotherapy, 100 ml 40 µg/mL for 5 consecutive days] <b>10. Wu, Junping; Tan, Cherie; Yu, Hongzhi; Wang, Youwei; Tian, Yutao; Shao, Wenwei; Zhang, Yifei; Zhang, Kuo; Shao, Hongxia; Ni, Guangjian; Shen, Jun; Wu, Qi and Ming, Dong. Case Report: Recovery of One ICU-Acquired COVID-19 Patient Via Ozonated Autohemotherapy (March 26, 2020). Available at SSRN: <a href="https://ssrn.com/abstract=3561379">https://ssrn.com/abstract=3561379</a></b>
0.08	[98 Covid-19 patients was treated with ozonized saline solution. Full text in Zotero ISCO3 library] <b>11. Husham A. Razaq, Mohammad S. Hasan, Muthanna F. Al-Dhalemy, Wurood M. Al-Silaykhee, Hekmat B. Alhmadi, Zaid A. Majeed. Utilization of Ozone as a Complementary Therapy for COVID-19 Patients. <i>International Journal of Psychosocial Rehabilitation</i>, 24(7), 2020. Pp. 10577-10588. DOI: 10.37200/IJPR/V24I7/PR271061</b>
0.012	[Case report, use of ozonized oil eye-drops] <b>12. Cosimo Mazzotta, Ermete Giancipoli. Anterior Acute Uveitis Report in a SARS-CoV-2 Patient Managed with Adjunctive Topical Antiseptic Prophylaxis Preventing 2019-nCoV Spread Through the Ocular Surface Route. <i>Int Med Case Rep J</i>. 2020 Oct 13;13:513-520. doi: 10.2147/IMCRJ.S260252. eCollection 2020.</b>
Undetermined PubMed/PMC	[Case Report (4 cases), rectal insufflation] <b>13. Marcos Edgar Fernández-Cuadros, María Jesús Albaladejo-Florin, Sandra Álava-Rabasa, Isabel Usandizaga-Elio, Dolores Martínez-Quintanilla Jimenez, Daiana Peña-Lora, Inmaculada Neira-Borrajó, María Jesús López-Muñoz, Javier Rodríguez-de-Cia, and Olga Susana Pérez-Moro. Effect of Rectal Ozone (O<sub>3</sub>) in Severe COVID-19 Pneumonia: Preliminary Results. <i>SN Compr Clin Med</i>. 2020 Aug 3: 1-9. doi: 10.1007/s42399-020-00374-1</b>
H index 17 PubMed/PMC SCOPUS	[Case Report (3 cases)] <b>14. Alberto Hernández, Montserrat Viñals, Tomas Isidoro, Francisco Vilás. Potential Role of Oxygen-Ozone Therapy in Treatment of COVID-19 Pneumonia. <i>Am J Case Rep</i>. 2020 Aug 17; 21:e925849. doi: 10.12659/AJCR.925849.</b>
CiteScore: 1.0 SNIP: 0.393 SJR: 0.190	[Case Report (1 cases), rectal insufflation] <b>15. Peña-Lora D, Albaladejo-Florin MJ, Fernández-Cuadros ME. Uso de Ozonoterapia en paciente anciana con neumonía grave por COVID-19. <i>Revista Española de Geriatria y Gerontología</i>. November-December; 55(6): 362-364 (2020). doi: <a href="https://doi.org/10.1016/j.regg.2020.07.005">https://doi.org/10.1016/j.regg.2020.07.005</a></b>
Undetermined	[Case Report (2 cases)] <b>16. Schwartz, Adriana and Rosa M<sup>a</sup> Narros. COVID-19 Dermatological manifestations. Presentation of two cases. <i>Ozone Therapy Global Journal</i>, (2020) 10(1): 27-38</b>
Undetermined	<b>17. Junping Wu, Cherie S. Tan, Hongzhi Yu, Youwei Wang, Yutao Tian, Wenwei Shao, Yifei Zhang, Kuo Zhang, Hongxia Shao, Guangjian Ni, Jun Shen, Antonio Carlo Galoforo, Qi Wu, and Dong Ming. Recovery of Four COVID-19 Patients via Ozonated Autohemotherapy. <i>Innovation (N Y)</i>. 2020 Nov 25; 1(3): 100060. doi: 10.1016/j.xinn.2020.100060</b>
Undetermined	[37 patients received Ozone I.M. <b>Low quality Scientific Evidence Paper</b> ] <b>18. David Brownstein, Richard Ng, Robert Rowen, Jennic-Dare Drummond, PA, Taylor Eason, Hailey Brownstein, and Jessica Brownstein. A Novel Approach to Treating COVID-19 Using Nutritional and Oxidative Therapies. <i>Science, Public Health Policy, and The Law. Clinical and Translational Research</i> Volume 2:4-22 July, 2020. <a href="https://www.publichealthpolicyjournal.com/clinical-and-translational-research">https://www.publichealthpolicyjournal.com/clinical-and-translational-research</a></b>
Undetermined	[19 Covid-19 patient with SSO3 2.2-2.4 µg/mL daily vs 18 Covid-19 patients. Treated patients improve at day 14, compared to control group] <b>19. Hamdad, E. V.; Nikifin, I. G.; Fedorova, K. V. Ozone Therapy in Patients with the New Coronavirus Infection Covid-19. <i>Bulletin of Rehabilitation Medicine</i>; - (5)-94-100, 2020. <a href="https://doi.org/10.38025/2078-1962-2020-99-5-94-100">https://doi.org/10.38025/2078-1962-2020-99-5-94-100</a></b>
Undetermined	<b>20. Marcos Edgar Fernández-Cuadros et al. (2021) Compassionate use of rectal Ozone (O<sub>3</sub>) in severe COVID-19 pneumonia: a case-control study. <i>SN Compr Clin Med</i> 2021 Mar 22;1-15. doi: 10.1007/s42399-021-00849-9.</b>
MedLine	[Egypt, Case report, 2 cases rectal insufflation] <b>21. Hamdy A Hendawy, Walid Mosallam, Mohamed E Abuehna, Amr M Sabry. Old Treatment for a New Disease: Can Rectal Ozone Insufflation Be Used for COVID-19 Management? A Case Report. <i>SN Compr Clin Med</i>. 2021 Apr 14;1-4. doi: 10.1007/s42399-021-00895-3.</b>
2.444	[55 COVID-19 hospitalized patients. 37 MAH 100 mL / 30 µg/mL 7 d vs. 18 Control. Outcome: O <sub>3</sub> could reduce mortality] <b>22. Şahin Çolak, Buncu Genç Yavuz, Mürsel Yavuz, Burak Özçelik, Metin Öner, Asu Özgültekin, Seniha Şenbayrak. Effectiveness of ozone therapy in addition to conventional treatment on mortality in patients with COVID-19. <i>Int J Clin Pract</i>. 2021 May 10:e14321. doi: 10.1111/ijcp.14321.</b>
3.380 Cite Score: 5.1	[10 patients O3SS ones a day for 8 days]. <b>23. Alok Sharma, Mili Shah, Satya Lakshmi, Hemangi Sane, Jignasha Captain, Nandini Gokulchandran, Pallavi Khubchandani, M K Pradeep, Prakash Gote, Balaji Tuppekar, Pooja Kulkarni, Amruta Paranjape, Radhika Pradlan, Ritu Varghese, Sushil Kasekar, Vivek Nair, Ummeemamara Khanbade. A pilot study for treatment of COVID-19 patients in moderate stage using intravenous administration of ozonized saline as an adjuvant treatment-registered clinical trial. <i>Int Immunopharmacol</i>. 2021 Apr 30;96:107743. doi: 10.1016/j.intimp.2021.107743.</b>
Meta analysis 2.450 MedLine	<b>24. Sarvin Radvar, Sepideh Karkon-Shayan, Ali Motamed-Sanave, Mohammadreza Majidi, Sakineh Hajebrahimi, Negar Taleschian-Tabrizi, Fariba Pashazadeh, Amirhossein Sahebkar. Using Ozone Therapy as an Option for Treatment of COVID-19 Patients: A Scoping Review. <i>Adv Exp Med Biol</i>. 2021;1327:151-160. doi: 10.1007/978-3-030-71697-4_12.</b>
Prevention Not indexed	[Prevention, 320 subjects. Treat.: 8 MiAH, Vit. D, B12 in 2 months. Significant decrease in rate of incidence of COVID 19] <b>25. Mili Shah, Jignasha Captain and Gayatri Ganu. Immunity prophylaxis with ozone therapy -review report. <i>EJBPS</i> 2020, Volume 7, Issue 12, 86-88. <a href="https://www.ejbps.com/ejbps/abstract_id/7440">https://www.ejbps.com/ejbps/abstract_id/7440</a></b>
Prevention MedLine 3.024	[Prevention, 235 subjects, 64 SSO3 vs 171 Control. Treat.: 4 SSO3 one a day, follow 1 month. Significant decrease in rate of incidence of COVID 19: 4.6% vs 14.03%] <b>26. A Sharma, M Shah, H Sane, N Gokulchandran, A Paranjape, P Khubchandani, J Captain, S Shirke, P Kulkarni. Intravenous ozonized saline therapy as prophylaxis for healthcare workers (HCWs) in a dedicated COVID-19 hospital in India - A retrospective study. <i>Eur Rev Med Pharmacol Sci</i>. 2021 May;25(9):3632-3639. doi: 10.26355/eurrev_202105_25847.</b>

**Preprint / Preliminary:**

Fedorova T.A., Bakuridze E.M., Yesayan R.M., Kozachenko I.F., Nikolaeva A.V. Application of ozone therapy in the complex treatment of patients with COVID-19 (Preliminary results). SBI NMITs AGP named after V.I. Kulakov "Ministry of Health of Russia, Moscow. [Ozone therapy SSO3 was given to 134 patients (patients' age - from 18 to 94 years).