

Cistus × Incanus L. Pandalis is zeer effectief tegen de Delta-variant van SARS-CoV-2 in vitro

Abstract

Achtergrond: Recente studies hebben aangetoond dat een speciaal extract van *Cistus x incanus* L. Pandalis (Cystus Pandalis® extract) effectief is gebleken tegen SARS-CoV-2 in vitro en het is waarschijnlijk dat het extract ook effectief blijkt te zijn tegen andere nieuwe varianten van SARS-CoV-2 zoals de "Indiase" Delta-variëteit. Methoden: Om onze bewering te verifiëren, onderzochten we hoe het extract Cystus Pandalis® de cytopathische werking (CPE) van het Coronavirus remt in een celmodel met menselijke darmcellen (Caco-2). We incubeerden virussen met het extract en mengden ze met de celculturen. Resultaat: Cystus Pandalis®-extract heeft de virusgroei bijna volledig geremd bij concentraties van meer dan 100 µg/ml. De berekende IC50 (gemiddelde remmende concentratie) voor de "Indiase" Delta-variant was 101 µg/ml. Conclusie: *Cistus x incanus* L. Pandalis extract (Cystus Pandalis® extract) is in staat om in-vitro te voorkomen dat celculturen geïnfecteerd worden met SARS-CoV-2. Door zijn hoge in-vitro-potentie tegen de nieuwe varianten van SARS-CoV-2 is het meer dan ooit redelijk om Cystus Pandalis® profylactisch te gebruiken om de virusbelasting te verminderen. De ontwikkeling van resistentie tegen het extract is niet waarschijnlijk. Mensen verdragen het extract zeer goed. Er zijn geen significante bijwerkingen geconstateerd. Fytofarmaca geëxtraheerd uit *Cistus x incanus* L. Pandalis zijn in staat virale infecties te bestrijden en kunnen helpen toekomstige pandemieën in te dammen door vooraf profylactisch te worden toegediend.

Cistus × Incanus L. Pandalis Is Highly Effective Against Delta Variant of SARS-CoV-2 in Vitro

Journal of Diseases and Medicinal Plants

Volume 7, Issue 3, September 2021, Pages: 82-86

Received: Aug. 23, 2021; Accepted: Sep. 3, 2021; Published: Sep. 8, 2021

Author

Jens-Martin Traeder, Institute of General Medicine, University of Luebeck, Lubeck, Germany

Abstract

Background: Recent studies have shown that a special extract from *Cistus x incanus* L. Pandalis (Cystus Pandalis® extract) has proven to be effective against SARS-CoV-2 in vitro and it is likely that the extract shows to be effective against other new variants of SARS-CoV-2 like the "Indian" Delta-Variety as well. Methods: In order to verify our claim, we examined how the extract Cystus Pandalis® inhibits the cytopathic action (CPE) of the Coronavirus in a cell model with human intestinal cells (Caco-2). We incubated viruses with the extract and mixed them with the cell cultures. Result: Cystus Pandalis® extract has almost completely inhibited virus growth at concentrations greater than 100 µg/ml. The calculated IC50 (mean inhibitory concentration) for the "Indian" Delta variant was 101 µg/ml. Conclusion: *Cistus x incanus* L. Pandalis extract (Cystus Pandalis® extract) is capable of preventing cell cultures from being infected by SARS-CoV-2 in-vitro. Because of its high in-vitro potency against the new variants of SARS-CoV-2, it is more than ever reasonable to use Cystus Pandalis® prophylactically in order to decrease the virus load. The development of resistance to the extract is not likely. People tolerate the extract very well. No significant side effects have been detected. Phytopharmaceuticals extracted from *Cistus x incanus* L. Pandalis are able to combat viral infections and can help contain future pandemics by being handed in advance prophylactically. (Vertaald met www.DeepL.com/Translator (gratis versie))

Keywords

Cystus Pandalis®, Virus Infection, SARS-CoV-2, Variants, Cistus Incanus, Delta

To cite this article

Jens-Martin Traeder, Cistus × Incanus L. Pandalis Is Highly Effective Against Delta Variant of SARS-CoV-2 in Vitro, *Journal of Diseases and Medicinal Plants*. Vol. 7, No. 3, 2021, pp. 82-86. doi: 10.11648/j.jdmp.20210703.13

Copyright

Copyright © 2021 Authors retain the copyright of this article.

This article is an open access article distributed under the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>) which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

References

- [1] DAZ: Mutanten und Virusevolution - Kann Impfen Resistenzen fördern? 31.03.2021 <https://www.deutsche-apotheker-zeitung.de/news/artikel/2021/03/31/kann-impfen-resistenzen-foerdern/chapter:1>.
- [2] Sanjuán R, Nebot MR, Chirico N, Mansky LM, Belshaw R.: Viral mutation rates. *J Virol*. 2010 Oct; 84 (19): 9733-48. doi: 10.1128/JVI.00694-10. Epub 2010 Jul 21.
- [3] Jo, W. K., Drosten, C., & Drexler, J.: The evolutionary dynamics of endemic human coronaviruses, *Virus Evolution*, Volume 7, Issue 1, January 2021, <https://doi.org/10.1093/ve/veab020>.
- [4] Read AF, Baigent SJ, Powers C, Kgosana LB, Blackwell L, et al.: Imperfect Vaccination Can Enhance the Transmission of Highly Virulent Pathogens. *PLOS Biology* 13 (7): e1002198. <https://doi.org/10.1371/journal.pbio.1002198> (2015).
- [5] Pott R: Polymorphismus bei Cistosen: Welche Varietät ist als Heilmittel tauglich? KFN-Presskonferenz, Vortrag, 8. 11. 2006.
- [6] Petereit F.: Polyphenolische Inhaltsstoffe und Untersuchungen zur entzündungshemmenden Aktivität der traditionellen Arzneipflanze *Cistus incanus* L. (Cistaceae). Dissertation, Universität Münster, 1992.
- [7] Ehrhardt C, Hrincius ER, Korte V, Mazur I, Droebner K, et al.: A polyphenol rich plant extract, CYSTUS052, exerts anti influenza virus activity in cell culture without toxic side effects or the tendency to induce viral resistance. *Antiviral research* 2007, 76 (1), 38-47. doi: 10.1016/j.antiviral.2007.05.002.
- [8] Rebensburg S, Helfer M, Schneider M, Koppensteiner H, Eberle J, et al.: Potent in vitro antiviral activity of *Cistus incanus* extract against HIV and Filoviruses targets viral envelope proteins. *Scientific reports* 2016, 6, 20394. doi: 10.1038/srep20394.
- [9] Traeder JM: Antivirale Eigenschaften des Extrakts aus *Cistus×incanus* L. *Pandalis* auch bei SARS-CoV-2 in vitro nachgewiesen. *Zeitschrift für Phytotherapie* 2021; 42 (03): 121-126, DOI: 10.1055/a-1302-6097.
- [10] Traeder JM: Extract from *Cistus × Incanus* L. *Pandalis* also Effective against “British” Alpha (B. 1.1.7) and “South African” Beta (B. 1.351) SARS-CoV-2 Variants, *Journal of Diseases and Medicinal Plants*. Vol. 7, No. 2, 2021, pp. 44-47. doi: 10.11648/j.jdmp.20210702.13.
- [11] Mhatre S, Srivastava T, Naik S, Patravale V.: Antiviral activity of green tea and black tea polyphenols in prophylaxis and treatment of COVID-19: A review [published online ahead of print, 2020 Jul 17]. *Phytomedicine*. 2020; 153286.
- [12] Riehle P: Phenolische Inhaltsstoffe in *C. incanus* Tee – Charakterisierung und Stabilität innerhalb der Teezubereitung. Dissertation Universität Hamburg (2014).
- [13] Kalus U, Grigorov A, Kadecki O, Jansen JP, Kiesewetter H, et al.: *Cistus incanus* (CYSTUS052) for treating patients with infection of the upper respiratory tract: a prospective, randomised, placebo-controlled clinical study. *Antiviral research* 2009, 84 (3), 267-271. doi: 10.1016/j.antiviral.2009.10.001.
- [14] Kalus U, Kiesewetter H, Radtke H.: Effect of CYSTUS052 and green tea on subjective symptoms in patients with infection of the upper respiratory tract. *Phytother Res*. 2010 Jan; 24 (1): 96-100. doi: 10.1002/ptr.2876. PMID: 19444821.
- [15] Traeder JM: Zistrosenextrakt zur Prophylaxe. *Erfahrungsheilkunde* 2021; 70: 204-208. Thieme, Stuttgart.