

Should We Use Rifampicin in Periprosthetic Joint Infections Caused by Staphylococci When the Implant Has Been Exchanged? A Multicenter Observational Cohort Study

TO THE EDITOR—We would like to thank the author for his interest in our research and for his comments regarding our article titled “Should We Use Rifampicin in Periprosthetic Joint Infections Caused by Staphylococci When the Implant Has Been Exchanged? A Multicenter Observational Cohort Study.”

We fully agree and are aware that small-colony variants (SCVs) can play an important role in staphylococcal periprosthetic joint infections (PJIs). Future studies should record this variable and investigate its impact based on species, chosen antibiotics, and outcome.

Clinical microbiologists should reach consensus on how to report information on SCVs in a structured form to clinicians. However, it is important to note that the absence of SCVs in culture does not rule out intracellular staphylococci.

In this study, we focused on cases of PJI that were treated with a total exchange of joint prosthesis (1-stage or 2-stage) independent of a previous failure. The benefit of rifampicin was observed in patients

with chronic infections treated with a 2-stage exchange. Total exchange followed by antibiotic treatment is widely accepted and used as a definitive treatment strategy. *S. aureus* was more frequent in the group not receiving rifampicin, and an infection with *S. aureus* that led to the explanation was identified as a independent risk factor for failure. The same is true for the use of rifampicin.

Our findings suggest that future studies should evaluate the additional effect on intracellular antibiotics (such as rifampicin) for PJI with *S. aureus* when no foreign bodies are present.

Acknowledgments

Collaborators. Rares Mircea Birlutiu, Marc Trojanowski, Lansing Sugita, Haijun Xu, Montserrat Sanmarti Vilamala, Laura Morata, Luisa Sorli, Juan Pablo Horcajada, Marie Dorel, Nicolo Rossi, Ashley Barnes, Björn Wandhoff, Vincent Derdour.

Potential conflicts of interest. All authors: no reported conflicts.

Tobias Siegfried Kramer,^{1,2,3,Ⓞ} Alex Soriano,⁴ Sarah Tedeschi,^{5,6} Antonia F. Chen,⁷ Pierre Tattevin,⁸ Eric Senneville,⁹ Joan Gomez-Junyent,¹⁰ Victoria Birlutiu,¹¹ Sabine Petersdorf,¹² Vicens Diaz de Brito,¹³ Ignacio Sancho Gonzalez,¹⁴ Katherine A. Belden,¹⁵ and Marjan Wouthuyzen-Bakker,¹⁶ on behalf of the ESCMID Study Group on Implant Associated Infections (ESGIAI)

¹Institute for Hygiene and Environmental Medicine, Charité Universitätsmedizin Berlin, Berlin, Germany; ²Clinic for Orthopedic Surgery and Traumatology, Evangelisches Waldkrankenhaus Berlin, Berlin, Deutschland; ³LADR der

Laborverbund Dr. Kramer & Kollegen, Geesthacht, Germany; ⁴Department of Infectious Diseases, University of Barcelona, IDIBAPS, Hospital Clinic of Barcelona, Barcelona, Spain; ⁵Department of Medical and Surgical Sciences, University of Bologna, Bologna, Italy; ⁶Infectious Diseases Unit, IRCCS Azienda Ospedaliero-Universitaria di Bologna, Bologna, Italy; ⁷Brigham and Women's Hospital, Harvard Medical School, Boston, Massachusetts, USA; ⁸Infectious Diseases and Intensive Care Unit, Pontchaillou University Hospital, Rennes, France; ⁹French National Referent Centre for Complex Bone and Joint Infections, CRIOAC Lille-Tourcoing, Lille, France; ¹⁰Department of Infectious Diseases, Hospital del Mar, Infectious Pathology and Antimicrobial Research Group (IPAR), Institut Hospital del Mar d'Investigacions Mèdiques (IMIM), Universitat Autònoma de Barcelona (UAB), CEXS-Universitat Pompeu Fabra, Barcelona, Spain; ¹¹Clinical Hospital of Orthopedics, Traumatology, and Osteoarticular TB, Bucharest, Romania; ¹²Institute for Medical Laboratory Diagnostics, Helios University Clinic Wuppertal, Wuppertal, Germany; ¹³Department of Infectious Diseases, Parc Sanitari Sant Joan de Deu, Sant Boi (Barcelona), Spain; ¹⁴Servicio de Cirugía Ortopédica y Traumatología, Hospital Universitario de Navarra, Pamplona, Spain; ¹⁵Division of Infectious Diseases, Sidney Kimmel Medical college at Thomas Jefferson University Hospital, Philadelphia, Pennsylvania, USA; and ¹⁶Department of Medical Microbiology and Infection Prevention, University of Groningen, University Medical Center Groningen, Groningen, The Netherlands

Received 09 January 2024; editorial decision 30 January 2024; accepted 06 February 2024; published online 8 February 2024

Correspondence: Tobias Siegfried Kramer, Dr med, Institute for Hygiene and Environmental Medicine, Charité Universitätsmedizin Berlin, Hindenburgdamm 27, Berlin 12203 (tobias.kramer@charite.de).

Open Forum Infectious Diseases®

© The Author(s) 2024. Published by Oxford University Press on behalf of Infectious Diseases Society of America. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted reuse, distribution, and reproduction in any medium, provided the original work is properly cited. <https://doi.org/10.1093/ofid/ofae075>