CORRESPONDENCE

Clinical Practice Guideline: Chronic Heart Failure

by Prof. Dr. med. Frank Edelmann, Prof. Dr. med. Christoph Knosalla, Prof. Dr. med. Klaus Mörike, Dr. med. Christiane Muth MPH, Peggy Prien Dipl.-Journ., and Prof. Dr. med. Stefan Störk in issue 8/2018

No Drawbacks for Digitoxin

The new clinical practice guideline for chronic heart failure, presented in *Deutsches Ärzteblatt International* (1), is dedicated to one timely topic that affects millions of patients in Germany. For this reason, it is regrettable that “digitalis glycosides” are still mentioned as a group. After painful experience, a clear distinction should be made between digitoxin (from *Digitalis purpurea*)—which is useful in heart failure—and digoxin (from *Digitalis lanata*), which is a high-risk substance. It took 50 years for the preference for digoxin by clinical pharmacologists to be identified as a mistake, based on pharmacokinetic studies in medical students. People do not develop heart failure at age 20 but in old age, when renal function has reduced physiologically to the point where digoxin accumulations with life-threatening arrhythmias can occur. With excess mortality of 27% in digoxin studies, the clinical shortcomings of the substance cannot be overlooked. Rather than correcting the mistake quickly, clinical practice continued to make do without using glycosides. It should have been immediately obvious that the long-trusted digitoxin should have been rehabilitated. J. Withering introduced *Folia digitalis* in the 18th century into scientific medicine. Later, digitoxin became an indispensable medication in heart failure. Study results on the drawbacks of digitoxin do not exist. The pharmaceutical industry was not interested in paying for the positive studies requested by experts. For several years, a study has been running at Hannover Medical School, which is funded by taxpayers’ money. Results are expected for the end of 2019. Interim results have shown prolongation of life in patients receiving digitoxin treatment, and these results confirm my 2016 plea: “the renaissance of digitoxin is overdue” (2). My letter to the editor was largely ignored, at least on the part of those responsible. Earlier thinking will be reversed at some point—and patients will be grateful to their doctors.

DOI: 10.3238/arztebl.2018.0285a

References

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2. Tauchnitz C: Correspondence (letter to the editor): the renaissance of digitoxin is overdue. *Dtsch Arztebl Int* 2016; 113: 39.

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In Reply:

We thank Professor Tauchnitz for his comments on our article (1). In our opinion, digitalis is a reserve medication. For this reason, in the national disease management guideline on chronic heart failure, we list digitalis only after basic medication and medication for selected patient groups in the third section, “Further medications” and make merely an open “can” recommendation (2). We see its value in the control of the resting heart rate in atrial tachyarrhythmias that cannot be controlled with betablockers only. We made a conscious decision in favor of the term “digitalis glycosides”, in order to make clear that in our opinion, digitoxin and semisynthetic digoxin derivatives (beta-acetyldigoxin, metildigoxin) can also be used, although data from prospective randomized studies are available for digoxin only (3). In the background text of the guideline, we mention the narrow therapeutic spectrum for digoxin and advise cautious use in elderly, female patients, and in patients with impaired renal function. Especially in the latter patients, clear preference should be given to digitoxin (2). These details were not included in our article in *Deutsches Ärzteblatt International*. We welcome the fact that a publicly funded study is investigating the importance of digitoxin as an addition to the currently used, guideline conform medications. We cannot, however, consider unpublished interim results for the guideline. Once the results of the DIGIT-HF study (4) are published, we will of course include the results into the update of the national disease management guideline on chronic heart failure.

DOI: 10.3238/arztebl.2018.0285b

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Conflict of interest statement

All authors declare that no conflict of interest exists.