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Prime time for anti-inflammatory agents for the
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Reply concerning “Colchicine in coronary artery disease: Role of anti-inflammatory medications redefined”: Prime time for anti-inflammatory agents for the management of cardiovascular diseases

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Dear Dr. Ghosh, we appreciate your comments concerning our recently published manuscript “Interest of colchicine in the treatment of acute myocardial infarction responsible for heart failure in a mouse model.”

Atherosclerosis is considered at least in part as an inflammatory condition [1] which is a main actor in cardiovascular disease.

Colchicine is a well-known anti-inflammatory drug with potential pleiotropic anti-inflammatory effects and has recently shown a benefit in acute myocardial infarction, decreasing the infarct size on MRI and creatine kinase peak [2]. These results were consistent with our mouse model of myocardial infarction [3].

These positive effects of anti-inflammatory drugs in cardiovascular disease seem to be available in clinical practice since the CANTOS study with a positive effect of canakinumab, a monoclonal antibody targeting interleukin 1- β [4].

Despite the recent failure of some promising drugs such as methotrexate (NCT01741558), trials are ongoing, evaluating the effect of

various anti-inflammatory agents in percutaneous coronary interventions and in myocardial infarction, including small trials with everolimus (NCT01529554), rituximab (NCT03072199), and several evaluating tocilizumab (NCT03004703).

A dedicated international prospective randomized trial is currently ongoing, studying the effect of colchicine versus placebo on cardiac events after myocardial infarction within the last 30 days with an estimated study completion date in 2019 and an estimated enrollment of 4500 patients (NCT02551094). Using an unexpensive drug could offer a widely affordable way to promote this underestimated actor in cardiovascular diseases.

Conflicts of interests

The authors report no relationships that could be construed as a conflict of interest.

References

- [1] G.K. Hansson, Inflammation, atherosclerosis, and coronary artery disease, *N. Engl. J. Med.* 352 (16) (2005) 1685–1695.
- [2] S. DeFtereos, G. Giannopoulos, C. Angelidis, et al., Anti-inflammatory treatment with colchicine in acute myocardial infarction: a pilot study, *Circulation* 132 (15) (2015) 1395–1403.
- [3] M. Akodad, J. Fauconnier, P. Sicard, F. Huet, F. Blandel, A. Bourret, P. De Santa Barbara, Interest of colchicine in the treatment of acute myocardial infarct responsible for heart failure in a mouse model, *Int. J. Cardiol.* 240 (2017) 347–353.
- [4] P.M. Ridker, B.M. Everett, T. Thuren, et al., CANTOS Trial Group, Antiinflammatory therapy with canakinumab for atherosclerotic disease, *N. Engl. J. Med.* 377 (2017) 1119–1131.