



Blue-Finger-Syndrome and Tofacitinib

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Clinical Image

A 61-year-old male patient with seropositive, ACPA-positive, erosive rheumatoid arthritis (RA) presented with a painful, blue-livid discoloration of his right index finger. Three weeks prior, due to worsening RA-symptoms, RA-therapy was changed from tocilizumab to tofacitinib. Arteriography showed a significant hypovascularization, oscillography a pathologic pattern. Angiological, hematological, cardiac and rheumatological workup demonstrated no significant findings but atherosclerotic changes including the right radial artery. In conclusion the blue-finger-syndrome can be interpreted as result of atherosclerotic changes, as a potential unexpected adverse event to tofacitinib or as a combination of both. Tofacitinib was permanently discontinued; iloprost and enoxaparin were initiated followed by phenprocoumon, which in the further course was replaced by acetylsalicylic acid. This resulted in rapid improvement of the symptoms. During a one year follow-up no additional vascular event was observed.

The blue-finger-syndrome results from blockage, usually thromboembolic or traumatic, of smaller blood vessels. Consequently, search for thromboembolic sources is required. Further causes include antiphospholipid-antibody-syndrome, connective-tissue-disease or vasculitis. To our knowledge, the blue-finger-syndrome has not yet been described under tofacitinib-therapy. In this patient an increase of LDL-cholesterol has been observed subsequent to initiation of tofacitinib. Therefore Atorvastatin was started during follow-up. An increase of cholesterol in association with tofacitinib-therapy [1,2] is reported not to augment the risk of cardiovascular events [1,3,4]. In general, the cardiovascular safety profile of tofacitinib is similar to other biological disease-modifying anti-rheumatic drugs [5]. Nonetheless, a drug-associated cause should be discussed (Figure 1).

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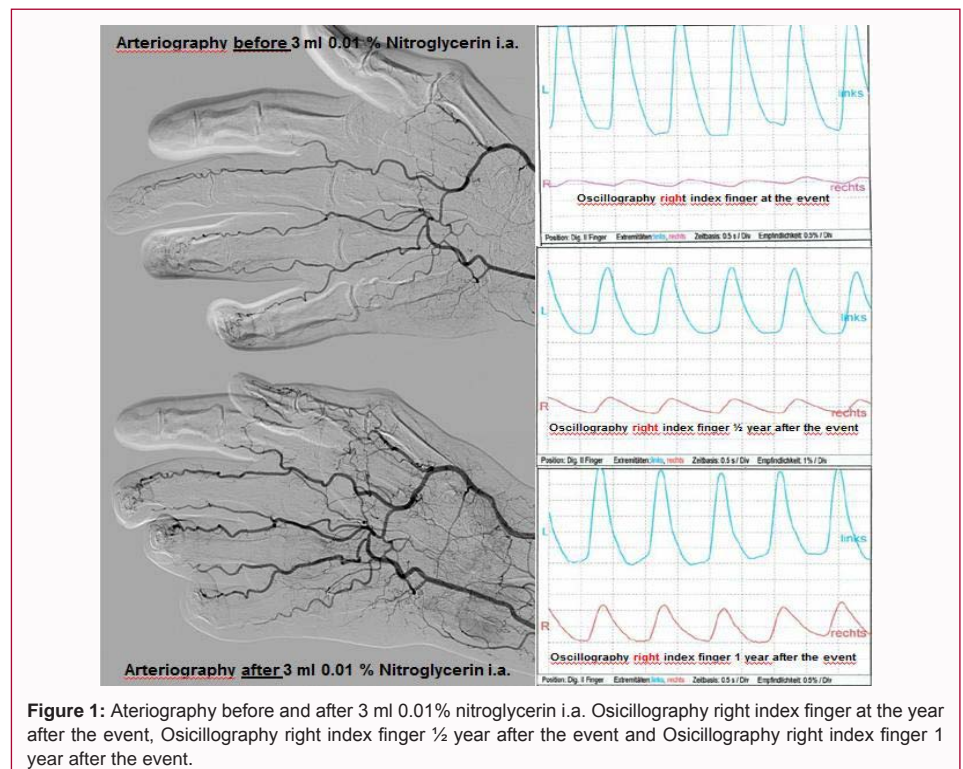


Figure 1: Arteriography before and after 3 ml 0.01% nitroglycerin i.a. Oscillography right index finger at the year after the event, Oscillography right index finger ½ year after the event and Oscillography right index finger 1 year after the event.

References

1. Jashin J Wu, Bruce E Strober, Peter R Hansen, Ole Ahlehoff, Alexander Egeberg, Abrar A Qureshi, et al. Effects of tofacitinib on cardiovascular risk factors and cardiovascular outcomes based on phase III and long-term extension data in patients with plaque psoriasis. *J Am Acad Dermatol.* 2016; 75: 897-905.
2. Fleischmann R, Kremer J, Cush J, Schulze-Koops H, Connell CA, Bradley JD, et al. Placebo-Controlled Trial of Tofacitinib Monotherapy in Rheumatoid Arthritis. *N Engl J Med.* 2012; 367: 495-507.
3. C Charles-Schoeman, P Wicker, MA Gonzalez-Gay, S P Wood, MG Boy, J Geier, et al. Cardiovascular Safety Findings In Rheumatoid Arthritis Patients Treated With Tofacitinib, A Novel, Oral Janus Kinase Inhibitor. *ACR/ARHP Annual Meeting.* 2013: 440.
4. Christina Charles-Schoeman, Hernan Valdez, Koshika Soma, Lie-Ju Hwang, Ryan DeMasi, Mary Boy, et al. Major Adverse Cardiovascular Events: Risk Factors in Patients with RA Treated with Tofacitinib. *ACR/ARHP Annual Meeting 2016;* 3024.
5. Wollenhaupt J, Silverfield J, Lee EB, Curtis JR, Wood SP, Soma K, et al. Safety and Efficacy of Tofacitinib, an Oral Janus Kinase Inhibitor, for the Treatment of Rheumatoid Arthritis in Open-label, Longterm Extension Studies. *J Rheumatol.* 2014; 41: 837-852.