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).

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


