Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Answer to Cadiou et al. "SARS-CoV-2, polymyalgia rheumatica and giant cell arteritis: COVID-19 vaccine shot as a trigger?". Joint Bone Spine 2021;88:105282

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We read with great interest the correspondence by Cadiou et al. [1] about COVID-19 vaccines triggering polymyalgia rheumatica (PMR) and Giant Cell Arteritis (GCA).

We are grateful for the attention they have paid to our previous correspondence [2] and, above all, for highlighting the possibility that COVID-19 vaccines may trigger PMR and/or GCA. In short, PMR and/or GCA may be triggered both by the virus and COVID-19 vaccination.

Recently, we reported a 69-year-old woman who complained of PMR the day after the first dose of the tozinameran (BNT162b2) vaccine [3]. No clinical manifestations of GCA was present, and an 18-fuoldeoxyglucose positron emission tomography associated with total body computed tomography showed an increased uptake of tracer in peri-artricular and extra-articular synovial structures of shoulder and pelvic girdles without large-vessel involvement. Nasal and oropharyngeal swabs were negative for SARS-CoV-2 both at the time of diagnosis and three days after. When therapy with prednisone 15 mg/day started, she quickly improved. After > 6 months, no different diagnosis was possible. She is still taking prednisone (7.5 mg/day) in line with the schedule proposed in 2015 by a European League Against Rheumatism/American College of Rheumatology (EULAR/ACR) collaborative initiative [4] and is fine. The second dose of vaccine was not administrated.

To date, we do not observe new-onset or flares of GCA following COVID-19 vaccination.

Cadiou and co-authors are right. A specific attention regarding signs of these adverse events may be needed in post approval observational studies evaluating vaccine tolerance. Reports are still anecdotal [5]. No doubt. In the specific case of PMR, it is a common knowledge that many PMR patients are managed by their general practitioners and are often not referred to rheumatologists [6,7]. Therefore, it is possible that some reports can be missed.

Finally, the interactions among COVID-19 vaccines, their adjuvants, and the human system are very complex, and the potential role of these vaccines in triggering PMR (with or without GCA) is yet to be clarified. For instance, the role of Toll-like receptors 7 and 9 [3,8], or the possibility that these adverse events may be considered as expression of an autoimmune/inflammatory syndrome induced by adjuvant (ASIA) [9] are intriguing working-hypotheses that deserves further studies with well-defined protocols.

Disclosure of interest

The authors declare that they have no competing interest.

References

[1] Cadiou S, Perdriger A, Ardois S, et al. SARS-CoV-2, polymyalgia rheumatica and giant cell arteritis: COVID19 vaccine shot as a trigger? Joint Bone Spine 2021;88:105282.
[2] Manzo C, Castagna A, Ruotolo G. Can SARS-CoV-2 trigger relapse of polymyalgia rheumatica? Joint Bone Spine 2021;88:105150.
[3] Manzo C, Natale M, Castagna A. Polymyalgia rheumatica as uncommon adverse event following immunization with COVID-19 vaccine: a case report and review of literature. Aging Med 2021;00:1–5, http://dx.doi.org/10.1002/agm2.12171 [Online ahead of print].
[4] Dejaco C, Singh YP, Perel P, et al. 2015 Recommendations for the management of polymyalgia rheumatica: a European League Against Rheumatism/American College of Rheumatology collaborative initiative. Ann Rheum Dis 2015;74:1799–807.
[5] Watad A, De Marco G, Mahajna H, et al. Immune-mediated disease flares or new-onset disease in 27 subjects following mRNA/DNA SARS-CoV-2 vaccination. Vaccines 2021;9:435.
[6] Sobrero A, Manzo C, Stimamiglio A. The role of the general practitioner and the out-of-hospital public rheumatologist in the diagnosis and follow-up of patients with polymyalgia rheumatica. Reumatismo 2018;70:44–50.
[7] Manzo C, Natale M, Traini E. Diagnosis of polymyalgia rheumatica in primary healthy care: favoring and confounding factors–a cohort study. Reumatologia 2018;56:131–9, http://dx.doi.org/10.5114/reum.2018.76900.
[8] Alvarez-Rodriguez L, Lopez-Hoyos M, Beares I, et al. Toll-like receptor 4 gene polymorphism in polymyalgia rheumatica and elderly-onset rheumatoid arthritis. Clin Exp Rheumatol 2011;29:795–800.
[9] Watad A, Bragazzi NL, McGonagle D, et al. Autoimmune/inflammatory syndrome induced by adiuvants (ASIA) demonstrates distinct autoimmune and autoinflammatyory disease associations according to the adjiuvant subtype: insights from an analysis of 500 cases. Clin Immunol 2019;203:1–8.

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