

CASE REPORT

Coronavirus

Inflammatory arthritis post-COVID-19 infection affecting the temporomandibular joint

The Coronavirus Disease 2019 (COVID-19) has various disease manifestations primarily affecting the respiratory system with indirect effects on the musculoskeletal system.¹ Signs and symptoms such as interstitial pneumonia, fatigue and headaches are well reported.² While arthralgia is one of the most common symptoms, there is little reported data on inflammatory manifestations like arthritis post-COVID-19 infection.² Here we report a case of inflammatory arthritis of the temporomandibular joint (TMJ) post-COVID-19 infection in a fit and healthy adult which may be of interest to your readership.

A 35-year-old fit and well man was referred by our colleagues in the emergency department with pain and swelling of his left TMJ. The patient presented with a six-week history of bilateral TMJ pain, worse on the left and distal polyarthritis affecting his hands and feet starting two weeks after a positive test and uneventful recovery from SARS-CoV-2 infection.

He had no history of previous TMJ pain or joint disorders, no previous reports of trauma to the face, no evidence of bruxism or familial history of arthritis.

The patient described a constant bilateral TMJ pain and examination revealed a diffuse mild swelling overlying the left TMJ with a restricted mouth opening of 15 mm.

Other than an elevated C-reactive protein, all his blood tests including all viral serology and infection and rheumatologic markers were normal.

The magnetic resonance imaging (MRI) of the left TMJ showed a significant joint space effusion (Fig. 1) with resultant anterior dislocation of the articular disc.

The patient was managed with Celecoxib, Ibuprofen and Prednisolone (reducing dose) for his distal polyarthritis and the same regime was recommended for his TMJ symptoms.

The patient was reviewed in clinic, three months following the onset of his symptoms, and reported improvement in symptoms



Fig. 1 MRI of the left TMJ showing joint space effusion

with increased mouth opening to 22 mm and significant resolution of the TMJ effusion on a repeat MRI. At his one-year review, there was complete resolution of his symptoms and a further increase in mouth opening to 35 mm with ongoing conservative measures.

Based on his clinical presentation and imaging, he was diagnosed with post-viral inflammatory arthritis of the TMJ secondary to COVID-19 infection.

To our knowledge, this is the first report of COVID-19-induced TMJ arthritis. However, as COVID-19 becomes endemic across the globe, dental professionals may encounter this presentation more frequently. Medical treatment with anti-inflammatory agents and corticosteroids is an effective first line management as in this case. This does require specialist referral and may sometimes need surgical intervention in the form of a therapeutic TMJ arthroscopy, lysis and lavage to treat any residual intra-articular adhesions.

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References

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