

## **Rt-Pcr Negative COVID-19 Infection in a Bodybuilding Competitor Using Anabolic Steroids: A Case Report**

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**Abstract :** This case reports a COVID-19 infection in an unvaccinated adult man with no history of COVID-19 and no relevant clinical history besides anabolic steroid use, undergoing weaning with tamoxifen after a bodybuilding competition. The patient presented a 4cm cervical mass 3 weeks after COVID-19 infection in his cohabitants. He was otherwise asymptomatic and tested negative to multiple RT-PCR tests. Nevertheless, the IgG COVID-19 antibody was positive, suggesting the previous infection. This report raises a potential link between anabolic steroid use and atypical COVID-19 onset. Objectives: The goals of this paper are to raise a potential link between anabolic steroid use and atypical COVID-19 onset but also to report an uncommon case of COVID-19 infection with consecutive negative gold standard tests. Methodology: The authors used CARE guidelines for case report writing. Introduction: This case reports a COVID-19 infection case in an unvaccinated adult man, with multiple serial negative reverse transcription polymerase chain reaction (RT-PCR) test results, presenting with single cervical lymphadenopathy. Although the association between COVID-19 and lymphadenopathy is well established, there are no cases with this presentation, and consistently negative RT-PCR tests have been reported. Methodologies: The authors used CARE guidelines for case report writing. Case presentation: This case reports a 28-year-old Caucasian man with no previous history of COVID-19 infection or vaccination and no relevant clinical history besides anabolic steroid use undergoing weaning with tamoxifen due to participation in a bodybuilding competition. He visits his primary care physician because of a large (4 cm) cervical lump, present for 3 days prior to the consultation. There was a positive family history for COVID-19 infection 3 weeks prior to the visit, during which the patient cohabited with the infected family members. The patient never had any previous clinical manifestation of COVID-19 infection and, despite multiple consecutive RT-PCR testing, never tested positive. The patient was treated with an NSAID and a broad-spectrum antibiotic, with little to no effect. Radiological testing was performed via a cervical ultrasound, followed by a needle biopsy for histologic analysis. Serologic testing for COVID-19 immunity was conducted, revealing a positive Anti-SARS-CoV-2 IgG (Spike S1) antibody, suggesting the previous infection, given the unvaccinated status of our patient Conclusion: In patients with a positive epidemiologic context and cervical lymphadenopathy, physicians should still consider COVID-19 infection as a differential diagnosis, despite negative PCR testing. This case also raises a potential link between anabolic steroid use and atypical COVID-19 onset, never before reported in scientific literature.

**Keywords :** COVID-19, cervical lymphadenopathy, anabolic steroids, primary care

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