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Repurposing of Adamantanes for the Potential Prevention or Treatment of COVID-19

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Amantadine for the Treatment of SARS-Cov-2: Case Report

The COVID-19 pandemic caused by the coronavirus SARS-CoV-2 has left more than 750,000 deaths worldwide, and efforts to develop a vaccine have been enormous. It has finally been announced that a vaccine will be available in December 2020. However, there is still a time gap where people continue to be infected by the coronavirus and deaths continue to advance.

Several therapies have been developed for the treatment of COVID-19. Initially, studies were done in which hydroxychloroquine along with azithromycin were assessed for their ability to mitigate the effects of the coronavirus in infected people. However, the treatment was not successful [1]. Studies were also undertaken with Ivermectin, but the studies were judged to be insufficient for it to be approved as a coronavirus antiviral [2,3]. Remdesivir was finally approved in the USA for severe SARS-CoV-2 infected patients [3].

In Mexico, we reported a case of a 57-year-old male with 10 years of type 2 diabetes mellitus and hypertension who presented with an infectious condition due to coronavirus. The first symptoms were a cold and muscle pain. He was prescribed paracetamol [500 mg every 6 h] and naproxen [550 mg/d for 5 days]. He continued with his usual diabetes medication consisting of 850 mg metformin/day. However due to a persistent cough 500 mg of azithromycin was added for 3 days, but symptoms continued until he tested positive for SARS-CoV-2 by RT-PCR. His oxygen saturation levels were at 84%, so we developed a protocol to treat the patient as follows:

Amantadine 100 mg for 14 days in order to stop the replication of the coronavirus. The first symptoms were a cold and muscle pain. He was prescribed paracetamol [500 mg every 6 h] and naproxen [550 mg/d for 5 days]. He continued with his usual diabetes medication consisting of 850 mg metformin/day. However due to a persistent cough 500 mg of azithromycin was added for 3 days, but symptoms continued until he tested positive for SARS-CoV-2 by RT-PCR. His oxygen saturation levels were at 84%, so we developed a protocol to treat the patient as follows:

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Figure 1: Chest X-ray taken 21 days after day 0 of COVID-19 infection and 14 days after treatment with amantadine.
lung aeration and a small residual image of pneumonitis mainly in both middle lobes but with a pulse oximetry of 94% saturation.

References

