

# Is there a Relationship between the COVID-19 Vaccine and Epistaxis?

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## Abstract

**Objectives:** The aim of this study was to identify if there was a change in the incidence of epistaxis attendances following initiation of the COVID-19 vaccination programme. **Design:** A retrospective, cohort study. **Setting:** A large university teaching hospital with an emergency department (ED). **Participants:** A study group consisting of adults attending the emergency department for epistaxis over a 2-month period in 2021 and a control group consisting of adults attending the emergency department for epistaxis over a 2-month period in 2019. **Main outcome measures:** The comparison of emergency department admission data with vaccination data between the control and study groups. **Results:** 187 (0.8% of total ED attendances) epistaxis attendances occurred in 2021 compared to 174 (0.6% of total ED attendances) epistaxis attendances in 2019 ( $p=0.002$ ). No significant differences in platelet count were observed between the vaccinated ( $250.52 \times 10^9/L$ ) and unvaccinated patients ( $214 \times 10^9/L$ ) in the study group ( $p=0.117$ ). The mean time between vaccination and presentation with epistaxis was  $36 \text{ days} \pm 23.5$  ( $n=102$ ). **Conclusion:** The COVID-19 vaccine may be responsible for an increased proportion of epistaxis attendances to our emergency department. No evidence of thrombocytopenia was observed amongst patients presenting with epistaxis after vaccine administration. The mean time between vaccination and presentation with epistaxis was over five weeks.

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