

Post Covid vaccine myocarditis

Presentation: (in < 21 years age)

- Mostly boys
- So far only after the Pfizer mRNA vaccine– in that age group because that's the only one approved less than 18 years age. But has been reported with the Moderna in young adults.
- Typically, on day 3 after second dose of vaccine, (2 to 10 days, upto 30 days), can happen after 1st, but rare
- Presenting symptoms **chest pain**, shortness of breath, palpitations

Work-up:

- ECG
- Echo
- Initial labs: CBC, CMP, **troponin**, BNP, CRP, ESR, urine toxicology if applicable, Covid PCR
- Subsequent labs: Trend troponins, myocarditis panel
- Cardiac MRI if felt necessary, though we feel that symptoms along with elevated troponin and timing after second dose is enough to make the diagnosis and an MRI is not really necessary in the acute phase

Admission:

If diagnosed with post Covid myocarditis: Admit to **telemetry unit** for monitoring. Some of these patients have been noted to have isolated PVCs or nonsustained ventricular tachycardia. In case of bed shortage on cardiac unit, can admit to PICU for at least 24 hours monitoring

Treatment:

-Typical presentation: Chest pain, shortness of breath with elevated troponins but with normal cardiac function: Can treat with high-dose Motrin along with a GI protective agent.

-Severe cases: In case of **heart failure, persistent elevation of troponin:** Consider giving steroids, IVIG

-we have used Methylprednisone 10mg/kg/d X 3 days, if still having ectopy, we start a steroid taper with prednisone 2 mg/kg/d in 2 doses, decrease every 5 days by 0.5 mg/kg/d

-IVIG 1 g/kg in 1 or 2 divided doses

-Very mild cases: In case of resolution of symptoms at the time of admission and troponin less than 1 ng/mL: May consider observation for 24 hours without any treatment

-consider Beta blockers for persistent non sustained VT

Please **report at:** <https://vaers.hhs.gov/esub/index.jsp>

Discharge Criteria:

- resolution of chest pain
- downtrending troponin for atleast 3 tests
- no significant ectopy (isolated PVCs are ok)

Follow-up:

- restrict from intense activity and sports for 3-6 months (regardless of severity)
- May consider discharging with a 30-Day Loop monitor in case of noted arrhythmia
- Follow-up in cardiology with ECG and echocardiogram in 2 weeks
- If happened after 1st dose, withhold 2nd dose

Please feel free to call/ email with any questions.

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