

SUPRAVENTRICULAR TACHYCARDIA IN A CHD PATIENT: IS IT TRIGGERED BY SarSCoV2 INFECTION?

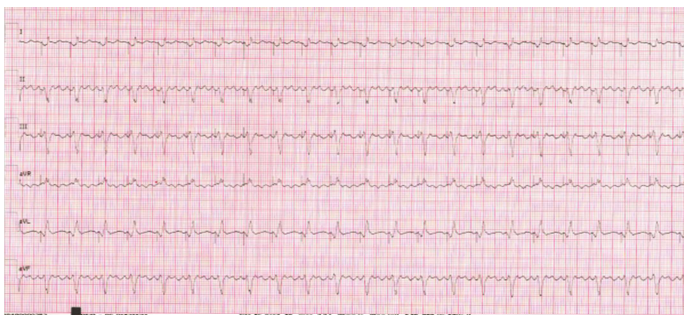
J.Fumanelli^a, J. Sabatino^a, E.Reffo^a, A. Cerutti^a, R. Biffanti^a, B.Castaldi^a,
D.Sirico^a, G Di Salvo^a L.Leoni^b

^a Department for Women's and Children's Health, Paediatric Cardiology Unit, Padua University Hospital
^b Department of Cardiac, Thoracic, Vascular and Public Health, Cardiology Unit, Padua University Hospital

BACKGROUND The coronavirus disease 2019 (COVID-19) is an highly contagious infectious disease, which has multiorgan consequences with subsequent outcomes of varying severity. Up to now literature regarding the heart rhythm disorders in paediatric patients affected by COVID-19 infection is quiet lacking. Rare case reports describe the association and the outcome between CHD and arrhythmias or between healthy children and severe arrhythmias.

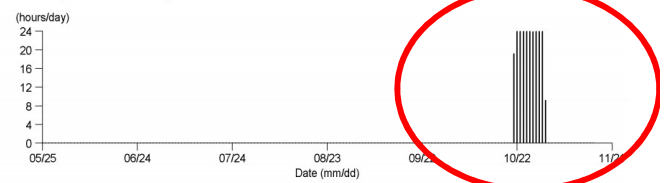
A 16 years-old teenager

- ✓ surgically corrected congenital heart disease (atrio-ventricular septal defect-**ASVD**)
- ✓ **dual chamber pacemaker** for post surgical complete AV block
- ✓ **palpitations** in the two days preceding access to the paediatric emergency department
- ✓ **Remote control of the device**: onset of **atrial flutter** from 2 days before ER (Figure 1) for the first time ever



Date/Time	Duration hh:mm:ss		Rate (bpm)	
			Max A	Max V
10/21/20 3:23 PM	>96:00:00	Suspended...	272	118
10/31/20 6:40 PM	1:21:12	Last	239	115

Atrial Arrhythmia Trend: 11 days with > 4 hours AT/AF



At emergency room:

- ✓ **stable** hemodynamic condition
- ✓ completely **asymptomatic**
- ✓ the EKG confirmed an **ATRIAL FLUTTER 2:1** at heart rate of 120 bpm (Figure 2)

Therapy:

- ✓ **LMWH** heparin, **NO** antiarrhythmic therapy
- ✓ **Riprogramming** the pacemaker in DDIR 75-160 bpm → median HR of 80 bpm with persistent heart rhythm disorder

CONCLUSION

- potential arrhythmic complication during active paucis-symptomatic COVID19 infection
- The self-resolving trend of the FLA in conjunction with the negativisation of the swab.

Might it be only SarSCoV2 infection correlated?

- ✓ **After 15 days of quarantine** the nasopharyngeal swab **NEGATIVE**
- ✓ Remote control of the device: **spontaneous restoration of the sinus rhythm in correspondence with the negativization of the swab** (figure 1)
- ✓ No more supraventricular arrhythmias