

Rowan University

## Rowan Digital Works

---

Stratford Campus Research Day

26th Annual Research Day

---

May 5th, 12:00 AM

### Bells Palsy: A Late Complication of SARS-CoV-2 Infection

Rohan Umrani  
*Rowan University*

Sameer Akhtar  
*Rowan University*

Sean Coulson  
*Rowan University*

Brian Thomas  
*Rowan University*

Yvette Wang  
*Jefferson Health of NJ*

Follow this and additional works at: [https://rdw.rowan.edu/stratford\\_research\\_day](https://rdw.rowan.edu/stratford_research_day)



Part of the [Diagnosis Commons](#), [Nervous System Diseases Commons](#), [Pathological Conditions, Signs and Symptoms Commons](#), and the [Virus Diseases Commons](#)

Let us know how access to this document benefits you - share your thoughts on our [feedback form](#).

---

Umrani, Rohan; Akhtar, Sameer; Coulson, Sean; Thomas, Brian; and Wang, Yvette, "Bells Palsy: A Late Complication of SARS-CoV-2 Infection" (2022). *Stratford Campus Research Day*. 21.  
[https://rdw.rowan.edu/stratford\\_research\\_day/2022/May5/21](https://rdw.rowan.edu/stratford_research_day/2022/May5/21)

This Poster is brought to you for free and open access by the Conferences, Events, and Symposia at Rowan Digital Works. It has been accepted for inclusion in Stratford Campus Research Day by an authorized administrator of Rowan Digital Works.

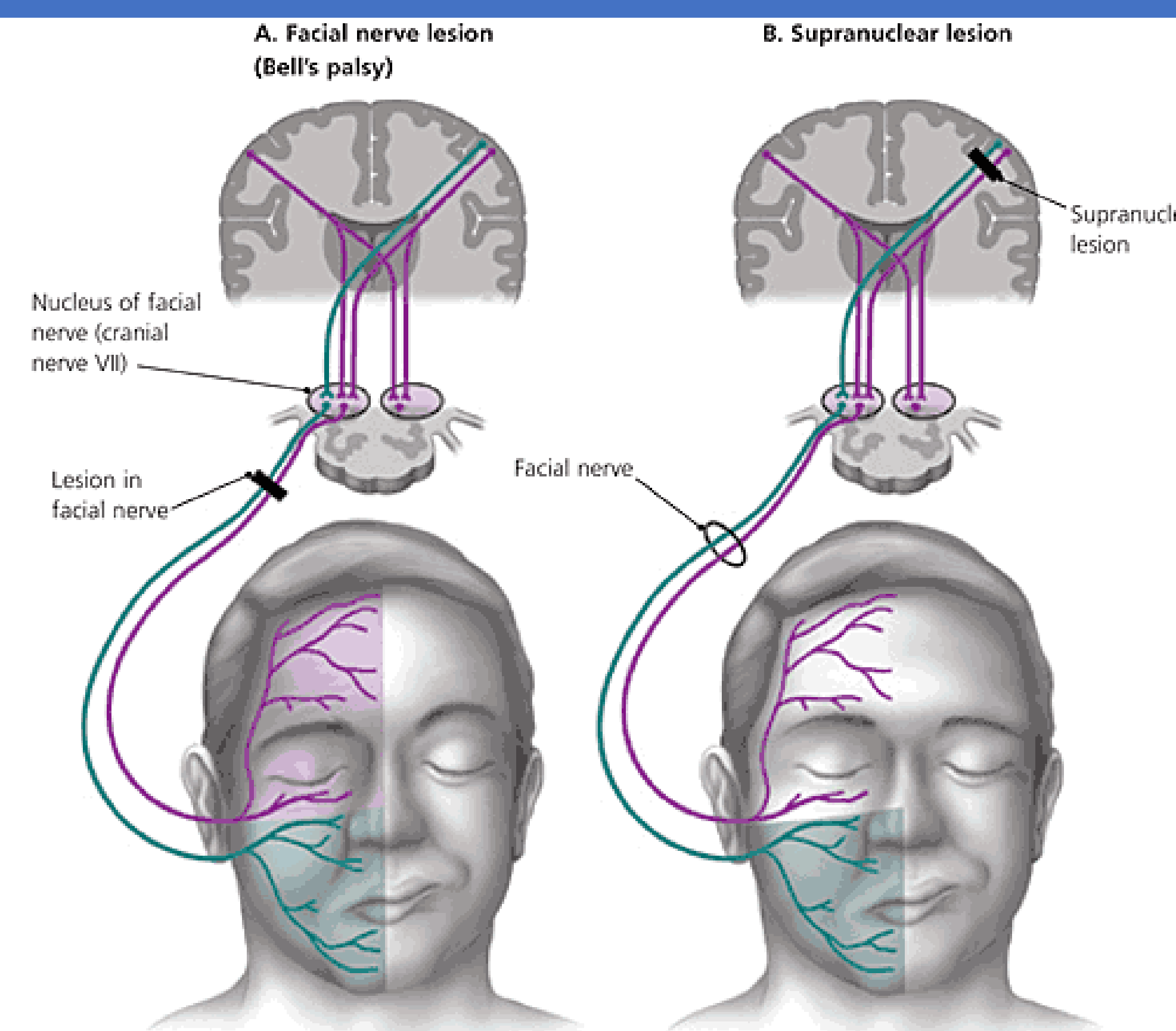


# Bells Palsy: A Late Complication of SARS-CoV-2 Infection

## Background

- Bells palsy involves the peripheral facial nerve (CN VII)
- Incidence: 13-34 per 100,000 people
- Susceptible populations include pregnant, and diabetics
- Etiologies
  - Infection
  - Mechanical compression
  - Ischemic phenomenon
  - Autoimmunity
- Lyme serologies should be obtained in patients with history of tick bite in Lyme endemic area
- Bells palsy can involve one or both sides of the face with loss of taste in the anterior 2/3 of the tongue

## Pathophysiology



## House-Brackmann Score

Grade	Description	Characteristics
I		Normal
II		Slight - mild weakness
III		Moderate - facial asymmetry and weakness but eye closes
IV		Moderately severe - total facial asymmetry and weakness with incomplete closure of the eye
V		Severe - barely detectable movement
VI		Total - no facial function

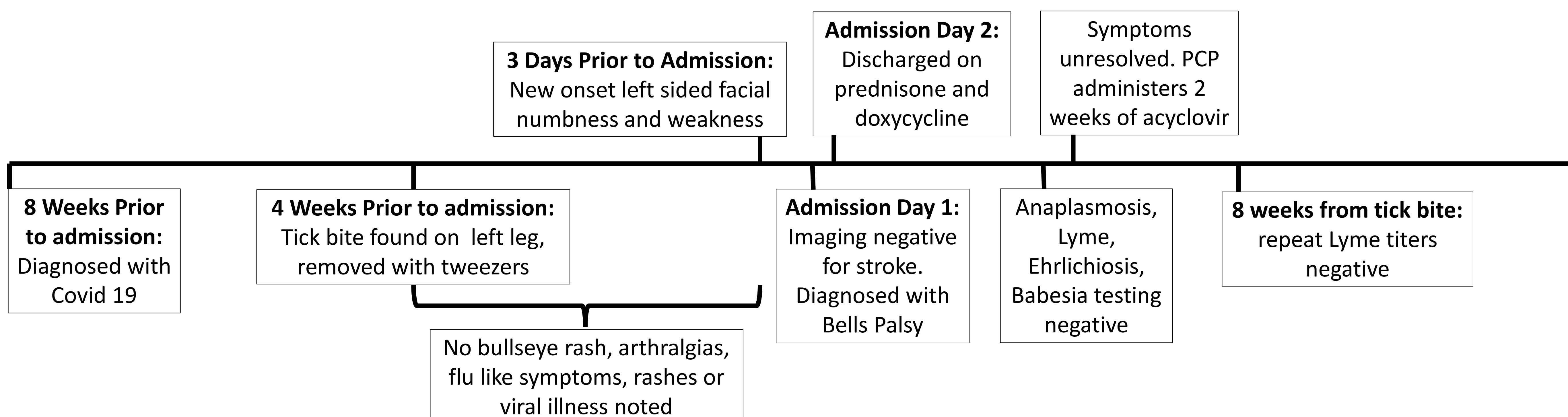
## Discussion

- Bells Palsy is commonly caused by HSV, VZV, Lyme disease and less commonly ischemia or local compression
- Presents with facial paralysis and loss of taste in anterior 2/3 of tongue
- This is a clinical diagnosis, and imaging studies are not necessary
- Treatment
  - Oral prednisolone 60-80 mg x 1 week within first 72 hrs of presentation
  - Antiviral therapy is controversial, but is indicated in patients with a House-Brackmann score >4
  - Eye taping, patching, or lubricants help with dry eye
  - 85% of patients resolve in 3 weeks
    - Beyond this, further testing with EMG and MRI are indicated
  - 71% of patients resolve without treatment in 6 months
    - If still unresolved, plastic surgery evaluation and lumbar puncture can be helpful
- Lyme serologies may be negative within first 4 weeks
- Covid 19 Vaccine studies found low incidence of post vaccination Bell's Palsy
- Tamaki et al found that 0.08 % of patients with Covid-19 had Bell's Palsy within 8 weeks of diagnosis

## Case Presentation

A 60 year old male with a PMH of SARS-CoV-2, OSA, primary hypogonadism, presented with a chief complaint of left sided facial numbness and weakness for 3 days.

## Patient Course



## Conclusion

In the absence of definitive Lyme serologies despite the history of tick bite, it is likely that this patient had Bell's Palsy as a late manifestation of COVID-19.