Case Presentation

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ID PGY-4

Case Presentation

Patient is a 53 Female who presents with **R facial & nuchal rash** on 5/26/19.

Patient has a medical history of:

- *HTN*
- *Migraine*

Patient came from Oman 3 weeks earlier.

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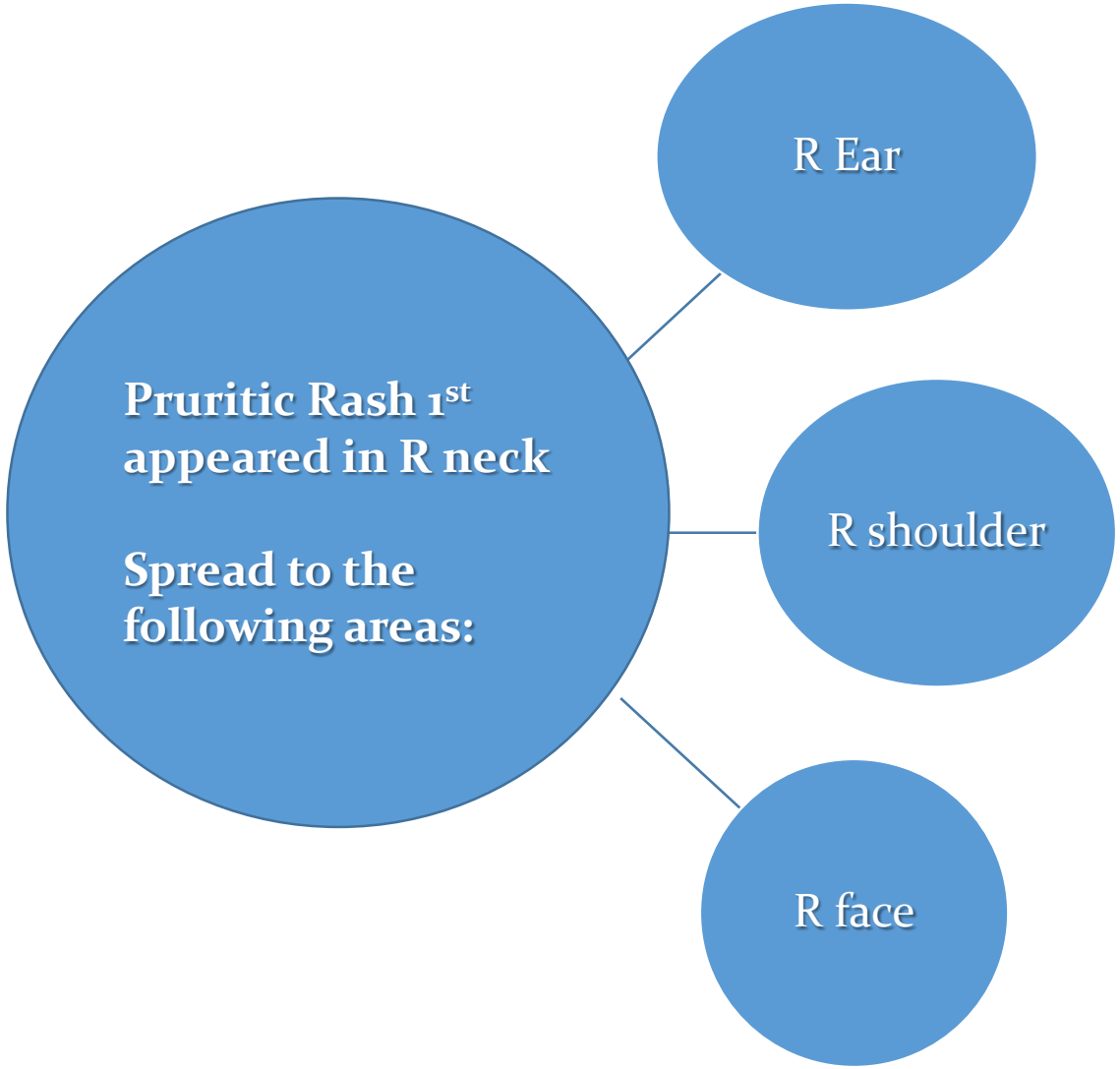
- ***All:*** *NKDA*
- ***PSH:*** *None*
- ***FH:*** *Father has history of CAD*
- ***SH:*** *Denies tobacco/alcohol/illicit drug use.*

Case Presentation

- **Lives:** *with children in Oman*
- **Occupation:** *Full-time house wife*
- **Travel:** 

- **Pets:** *None*

Case Presentation



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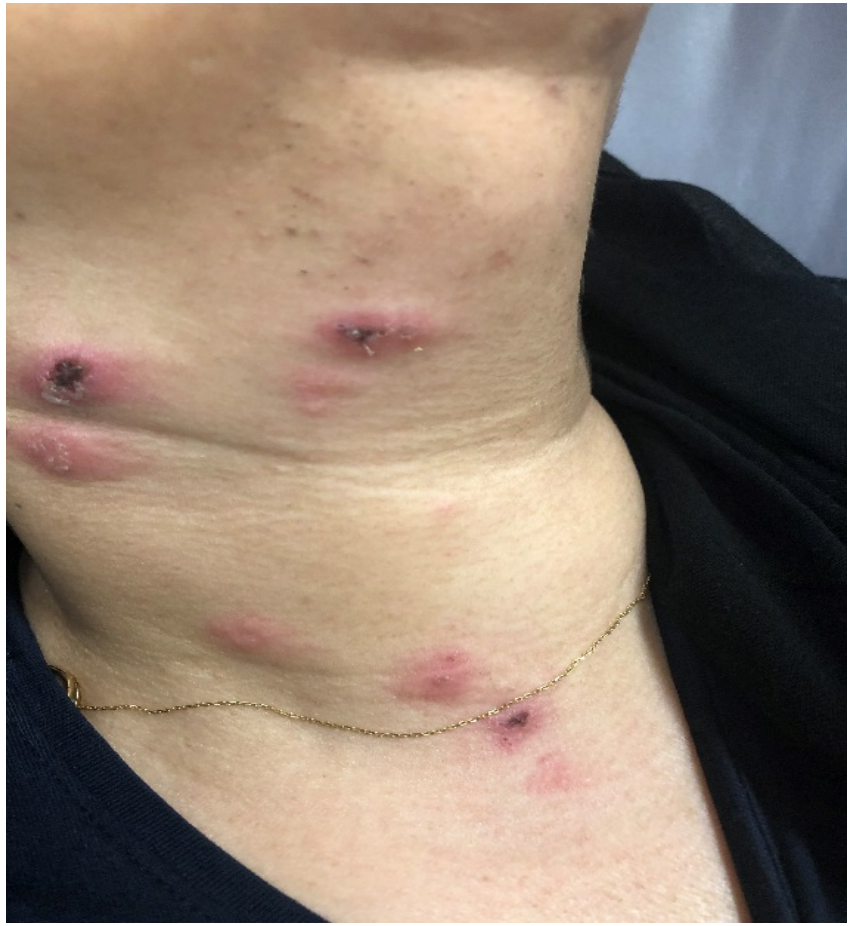

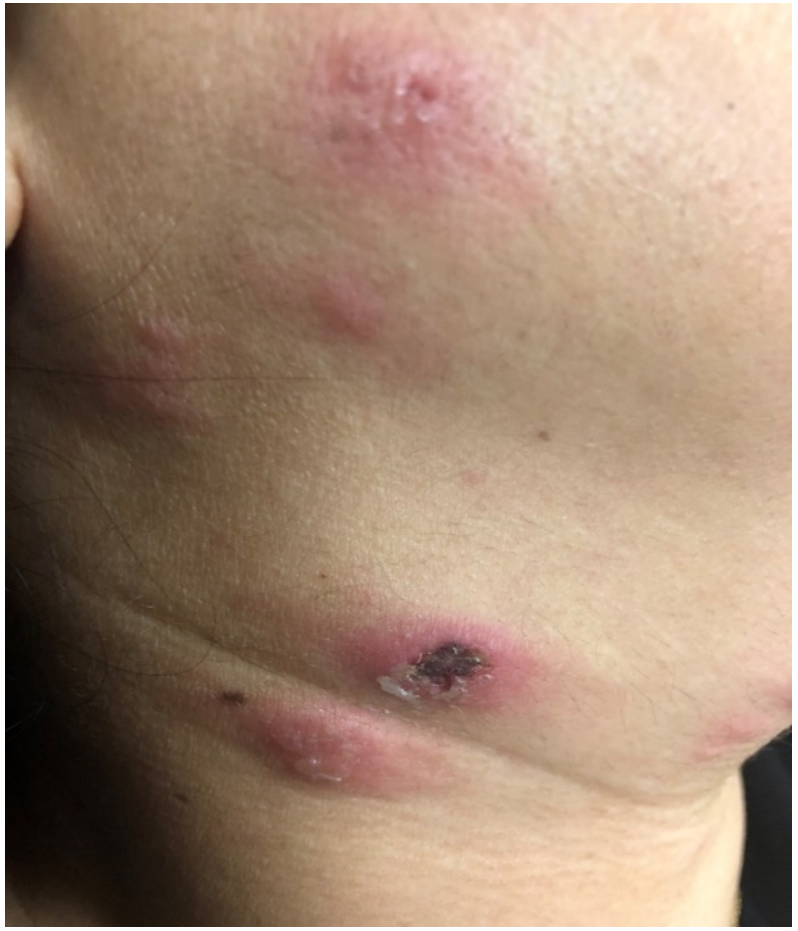

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Complained of the following associated symptoms:

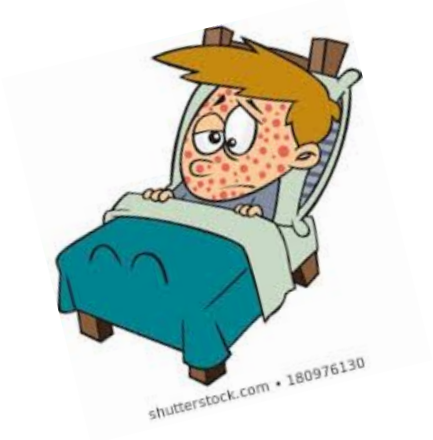
- *Headache for 8 days (preceded rash; failed to improve with Tylenol).*
- *Odynophagia(mild)*
- *Fever (subjective)*
- *Chills*

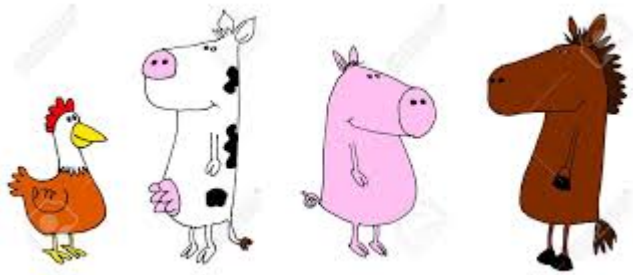
Denies the following:

- **Nuchal rigidity**
- **Photophobia**
- **Visual changes**
- **Cough**
- **SOB**
- ***Chest pain***
- ***Nausea***
- ***Abdominal pain***
- ***Myalgia***
- ***Arthralgia***

Case Presentation

- **Denies the following:**
- Sick contact(s)
- Farm animals
- Contact with animal hides or skin.
- Recent spider or insect bite
- Outdoor activities





Case Presentation

Vitals

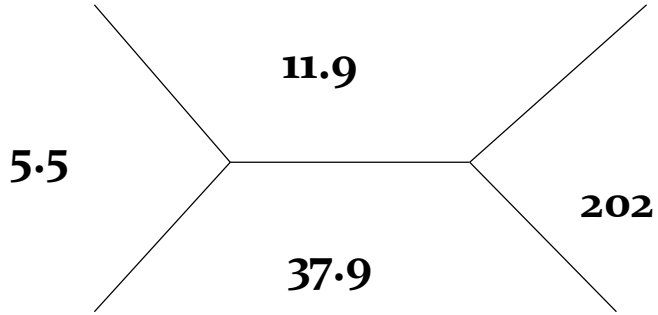
T *98.2F* **BP** *152/62* **HR** *68* ***RR 18***

Physical examination

- GA: Patient was in distress from headache.
- Skin: warm and dry with good turgor. **Presence of rash with central eschar in R aspect of face & neck**
- HEENT: NCAT. Ears clear. Eyes no icterus or conjunctivitis. PEERLA. Nose is clear. No oral thrush.
- Neck: Supple without JVD, thyroid enlargement or bruits.
- LUNGS: CTA and percussion. No rales, rhonchi or wheezes
- CV: RRR, No murmurs, thrills, heaves or rubs. S1/S2 normal.
- Abdomen: flat and soft. No guarding or rigidity. Bowel sound present.
- Extremities: No pedal edema.
- Neuro: AOx3. CN intact

Case Presentation

LABS



138	100	9
3.5	29	0.74

- **Segmented/Bands/mono/eosinophil: 72/5/7/1**
- **AST/ALT/ALP: 18/21/53**
- **T bili: 0.41**

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Differentials?

Differential Diagnosis

- **Mediterranean spotted fever (R.conorii)**
- **Cutaneous anthrax**
- **Histoplasmosis**
- **Cutaneous leishmaniasis**
- **VZV**

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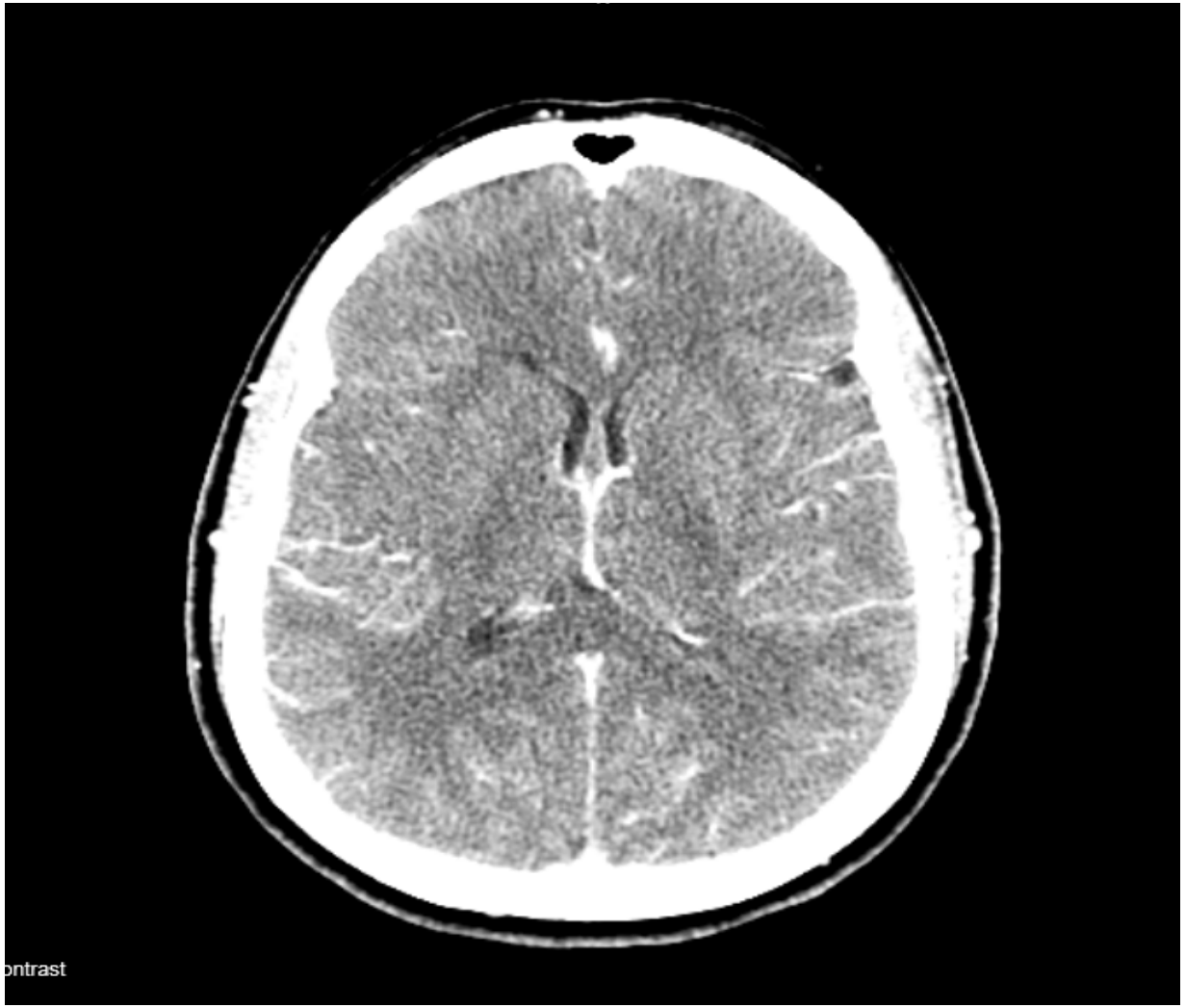
Imaging:

- **Chest x-ray:** *No significant findings.*
- **CTH 5/27:** ***Diffuse leptomeningeal enhancement suspicious for meningitis. No significant mass effect.***
- **MRI Brain 5/29:** *No significant findings.*

CTH leptomeningeal enhancement



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CSF analysis (after LP on 5/27/19)	
Opening pressure	7cm H2O (clear colorless)
RBC	**10**
WBC	**353**
Neutrophils	0
Lymphocytes	76%
Glucose	69
Protein	49

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CSF studies		HSV/VZV studies	
Hu Ab	Negative	HSV 1 swab	Negative
JC virus	Negative	HSV 2 swab	Negative
Listeria Ab	Negative	HHV-8 blood	Negative
VDRL	Negative	**VZV swab (PCR)**	**Positive**
WNV	Negative		
Toxoplasma	Negative	**Other tests**	
HSV 1/2	Pending	HIV	Negative
Adenosine Deaminase	Negative	TP Ab	Non-reactive
Lyme	Negative	Histoplasma Ag (urine)	Non-reactive
Coccidi IgG	Negative		
CSF culture	**Negative (held for 6 days)**		
CSF VZV IgG	**Positive**		
CSF VZV DNA	Never reported		

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- **Pathology from punch biopsy:** *acute-chronic inflammation & extensive necrosis. No malignancy or viral inclusion seen.*
- **Blood cultures:** *Negative (held for 5 days)*

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Antibiotics & Antivirals	Duration
Ciprofloxacin	STAT on 5/27
Clindamycin	STAT on 5/27
Vancomycin	5/27-5/29
Ceftriaxone	5/27-5/29
Ampicillin	5/27-5/29
Acyclovir	**5/27-6/3**

per Primary team

VZV-neurological complications

The incidence of neurologic complications associated with varicella is estimated to be 1–3 per 10,000 cases.

The most frequently occurring neurological complications include :

- Cerebellar ataxia
- Encephalitis
- Aseptic meningitis.

Varicella with cerebellar ataxia

- **Occurs in 1 in 4000 varicella cases.**

- **Possible mechanisms:** Direct viral infection of the cerebellum vs post-infectious demyelinating process
- **Ataxia develop within 2 weeks after onset of varicella**.

- Neurologic symptoms seen **25% of patients** most often occur simultaneously with rash.

Varicella encephalitis

- **Most serious CNS complication of varicella.**
- **Incidence: 1–2 episodes per 10,000 varicella cases.**
- **Mechanism:** Post-infectious demyelinating process vs direct viral cytopathology.
- **Neurologic symptoms most often occur about 1 week after the onset of the varicella rash.**
- **The mortality for varicella encephalitis is 5%–10%.**

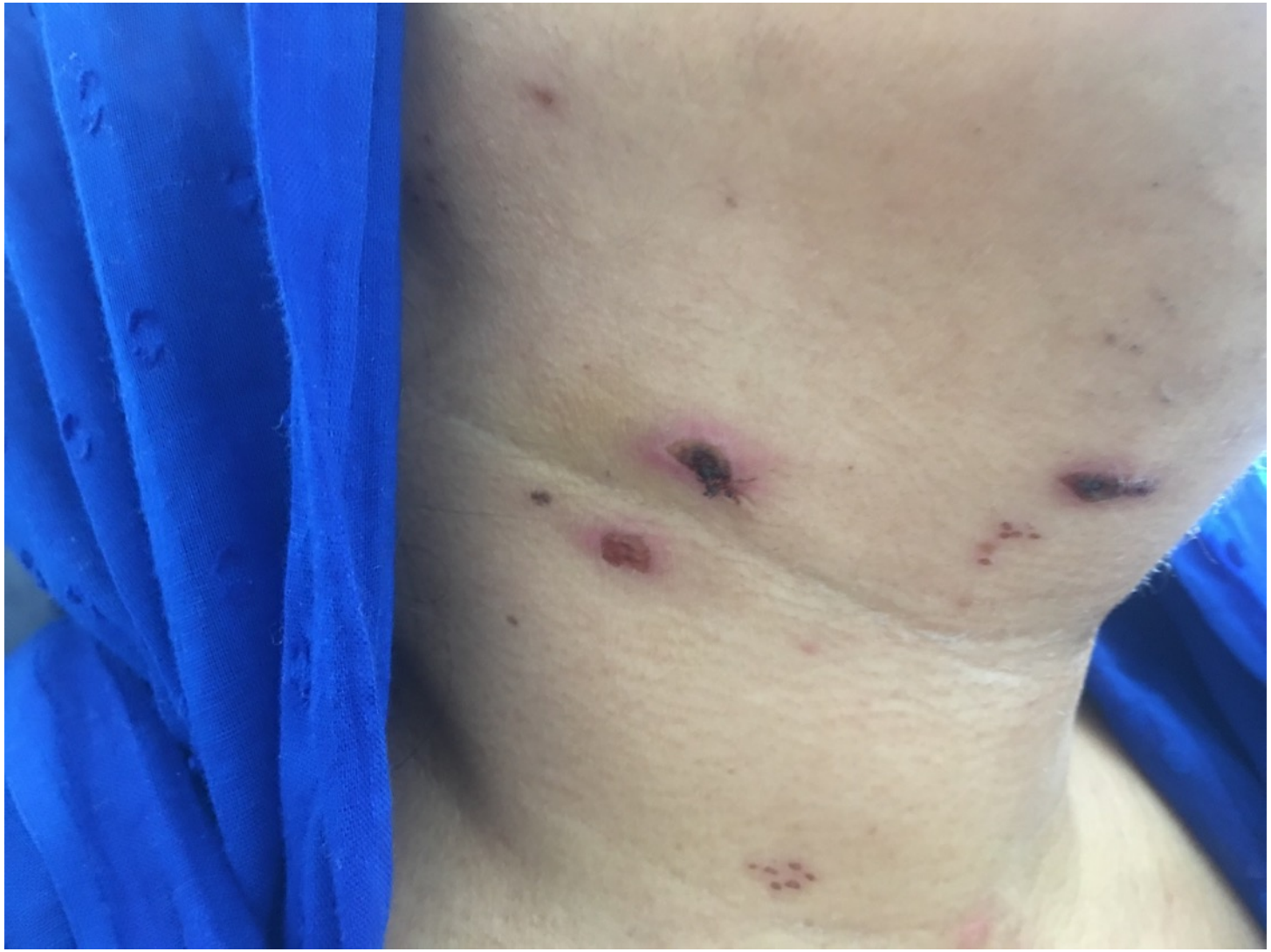
Varicella meningitis

- **Cause of 5-11% cases of aseptic meningitis.**
- Present **with or without** dermatomal rash.
- **Diagnosed with CSF: VZV Ab (IgM/IgG) or VZV DNA PCR.**
- **Recommended treatment is Acyclovir IV for 10-14days.**
- **Can be treated with oral Valacyclovir for 10-14days.**

Varicella meningitis

- Patient was discharged on oral valacyclovir (completed 7 days of IV acyclovir).

Varicella meningitis



Thank you