AN UNUSUAL CAUSE OF FEVER : IMPORTANCE OF HISTORY TAKING

Dr. Vipul V shah MD

Consultant : Infectious Diseases

CASE HISTORY

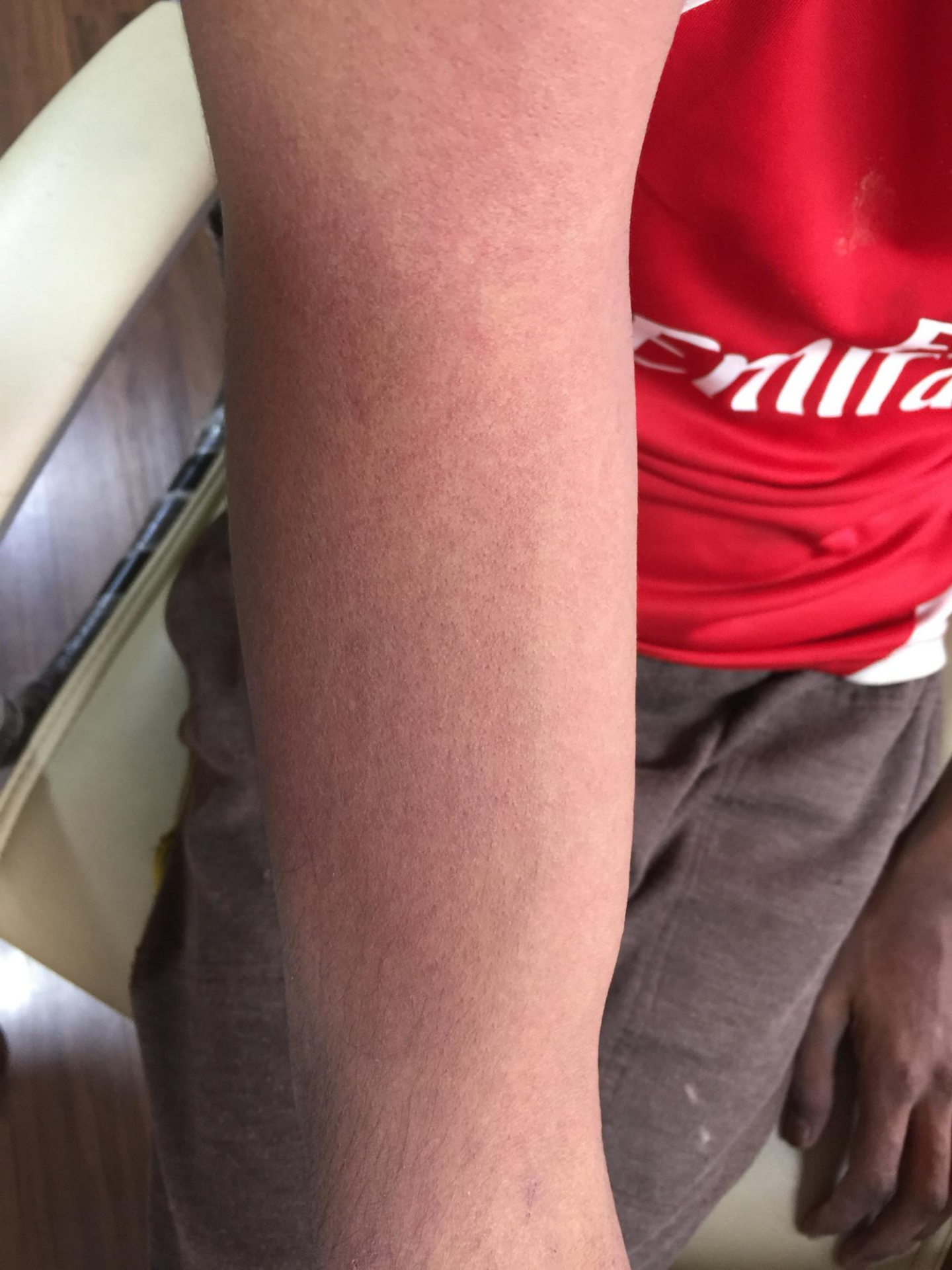
- A 20 years old male from Ahmedabad referred by physician on 24-05-2017
- Fever since 9 days
  - Daily two spikes
  - Moderate to high degree
  - Without rigors
- Associated backache, bodyache
- Redness of body since 6 days which started on trunk and then on limbs and face
- Cough, abdominal pain since 2 days

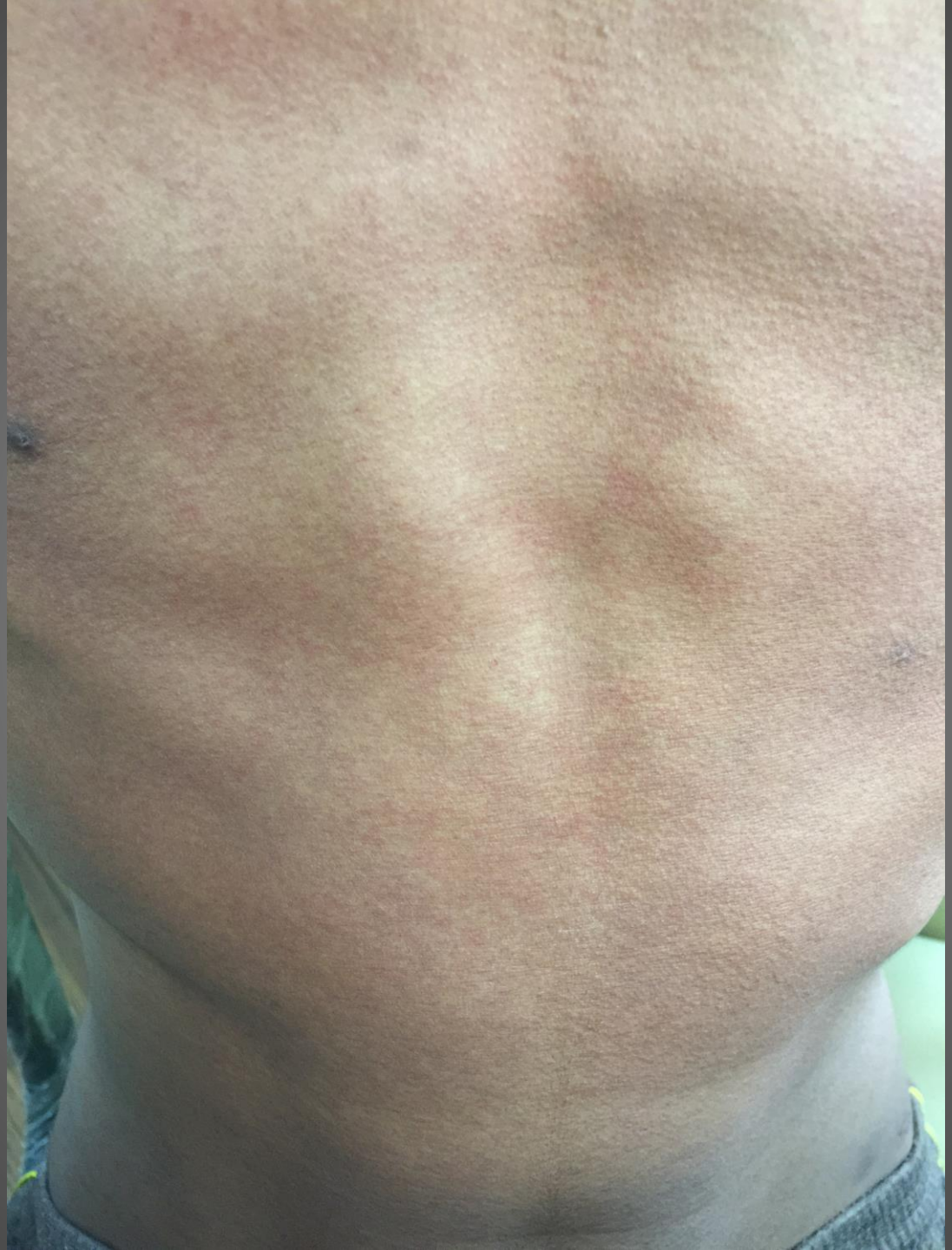
CASE HISTORY

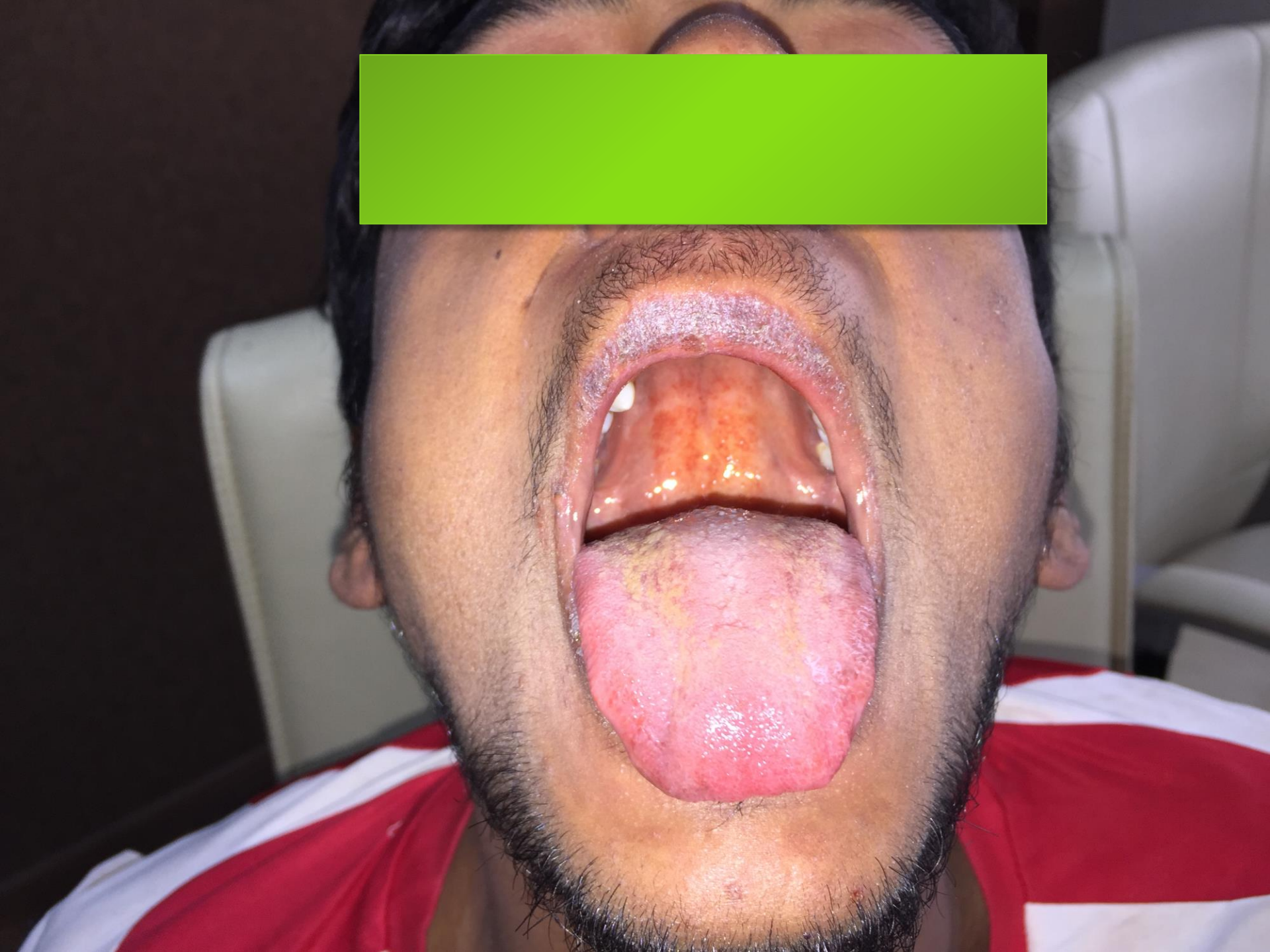
- No history of chestpain, breathlessness
- No history of nausea, vomiting or diarrhoea
- No history of joint pain
- Past history of epilepsy since 8 years
  - On valpraote since 8 years from govt hospital
  - Changed to carbamazepine on 13-04-2017 by neurologist for breakthrough seizure
- Rest of his past, personal and family history not significant

ON EXAMINATION

- Temp : 104*F; Pulse: 108/min; BP: 120/80 mm of Hg; RR:18/min
- No pallor, icterus, cyanosis, clubbing
- Oral cavity : On hard palate rash present
- Bilateral cervical and axillary lymphadenopathy
- Skin : Maculopapular rash all over body, at places coalesces, at some places erythematous blanching
- His systemic examination was within normal limit







LABORATORY INVESTIGATIONS BEFORE COMING TO OUR CLINIC

- Hb : 12 gm%; TC:9400; DC: P45 L30 E20 M5 B0
- ESR : 25/ 1st hr; PC: 179,000
- Urine : Normal
- Creat : 0.6; Na^+ : 129; K^+ : 3.84
- SGPT: 259; Billirubin : 0.65/0.49/0.16; SAP: 670
- PT/ApTT : normal
- Lipase : 36; Amylase : 37

- Serology for dengue, HBV, HAV, HEV were negative
- QBC : negative for MP
- X-Ray chest P(A) : normal
- USG abdomen : Mild hepatosplenomegaly

POSITIVE FINDINGS

- Young male with high fever
- Skin rash
- Recent change in antiepileptic drug
- Eosinophilia
- High SGPT

WORKING DIAGNOSIS

- DRESS (Drug Rash, Eosinophilia, Systemic Symptom) Syndrome
- Culprit drug is carbamazepine

TREATMENT ADVISED

- To stop carbamazepine immediately
- Prednisolone
- Antihistaminics
- Supportive treatment

FOLLOW UP

- Patient gradually became better
- Fever took long time to subside
- Skin rash gradually cleared

ADVISED INVESTIGATIONS

- IgE : physicians not asked for it
- Absolute eosinophil count : 18000/cmm
- Blood cultures : Negative

FINAL DIAGNOSIS -AHS

- Anticonvulsant (Carbamazepine) induced hypersensitivity syndrome (AHS)

DISCUSSION

- First described in 1950
- Anticonvulsant hypersensitivity syndrome (AHS) is a rare but potentially life-threatening adverse drug reaction associated with the aromatic anticonvulsant drugs
  - Phenytoin,
  - Phenobarbital
  - Primidone
  - Carbamazepine

- Incidence: 1 in 1,000 to 10,000 exposures
- It is characterized by a triad of
  - Fever, skin eruption, and internal organ involvement (ie, hepatitis, nephritis, lymphadenopathy)
- The rash - range from a mild exanthematous eruption to the more serious Stevens-Johnson syndrome and is present in approximately 90% of patients with this syndrome
- Most cases occur 1 to 8 weeks after exposure

DIAGNOSIS

- Diagnosis is most frequently based on the recognition of this triad of symptoms and clinical judgment
- Temporal relation of drug and symptoms
- Patient may have eosinophilia and high IgE level

TREATMENT OF AHS

- Early discontinuance of the offending agent
- Future avoidance of all aromatic anticonvulsants - cross-reactivity may be as high as 75%.
- Medical care is mostly supportive
- Steroids and IV immunoglobulin may be helpful in severe cases

TAKE HOME MESSAGE

- Family physicians should be aware of the AHS because of the high likelihood that patients with this syndrome will come first to their primary care physicians for care
- It is very crucial to take drug history, see the prescriptions which sometimes patient may not narrate to you

THANK YOU