

## Case based learning points

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## A 34-year-old Pregnant Woman with Chickenpox Re-infection

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**Cite this article as:** Karimi S, Babaniamansour S, Aliniagerdroudbari E. A 34-year-old Pregnant Woman with Chickenpox Re-infection. *Adv J Emerg Med.* 2019;3(3):e31.**Figure 1:** Patient's skin lesions manifestations**CASE PRESENTATION**

A 34-year-old pregnant woman was referred to our emergency ward, complaining of intensification of skin lesions which had started six days earlier. Initially, vesicular lesions had started from head and face accompanied by fever which turn to generalized pustular lesions expanded to the whole body within four days (figure 1). By investigating the patient's personal contact history, we found that same symptoms were detected in her 9-year-old child 19 days prior to admission which was diagnosed as chickenpox. The patient also had mentioned previous history of chicken pox infection at her age of seven.

She was ill but not toxic and was conscious with a blood pressure of 98/59 mmHg, respiratory rate of 18 breaths per minute, heart rate of 100 beats per minute and oral temperature of 37.2 °C in physical examination. She didn't have respiratory distress, dyspnea, meningism symptoms (Kernig Sign, Brudzinksi, and Nuchal Rigidity), ataxia or sensory defect and her all other physical examinations were

normal.

Upon diagnosis of chickenpox, intravenous (IV) acyclovir 750 mg three times a day and also IV clindamycin 900 mg TDS in combination with IV fluid were administered and finally the patient was admitted in Infectious diseases ward.

**LEARNING POINTS**

Varicella zoster virus (VZV) is an  $\alpha$  herpes virus that commonly affect school-aged children in form of chicken pox and then it establishes latency in patient's dorsal root ganglia. A spectrum of signs and symptoms are represented from self-limiting in children to severe in immunocompromised patients. Probability of VZV infection in pregnant women is about one to five per 10000 pregnancies. Although the prevalence is not higher in pregnancy, but due to the special immune system of pregnant women, risks of maternal and fetal side effects are high due to the special immune system of pregnant women. VZV infection often manifests itself in form of shingles disease on reactivations, but it can prove to be reactivated with typical symptoms of chickenpox in very rare cases. It seems that history of VZV infection had been unable to cause a lifelong immunity for an individual and could not protect a person against recurrent chickenpox infection. To reduce high morbidity and mortality rate, physicians are advised to investigate a patient with diagnosis of chickenpox whenever a patient referred with generalized typical VZV lesions, despite history of previous exposure (1-3).

All pregnant women with established chickenpox should receive antiviral therapy either alone or in combination with varicella zoster immune globulin (VZIG). Oral acyclovir is proper but IV acyclovir in severe pregnancy complications is preferred, especially in the second half of pregnancy. It is recommended to start antiviral therapy within 24 hours and up to 72 hours of the development of rash (4).

Some believe that management could be considered based on immune testing instead of universal varicella-zoster immune globulin administration when dealing with presumed susceptible chickenpox exposed gravid (5). Susceptible pregnant women with significant VZV exposure should be offered VZIG. A history of chickenpox negates the need for serological testing. With no history of chickenpox, serology should be

checked if time permits, otherwise, VZIG should be given. The main indication for VZIG is to modify disease and prevent maternal morbidity (4).

Meanwhile, the patient should be monitored and treated by investigating the probable side effects that threaten the mother such as bacterial skin infection, varicella pneumonia and neurological complications (3).

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