

Hemorrhagic Varicella

Carmen E. Calubaquib, M.D.,* Edna G. Santiago, M.D.,** Evangeline Tolentino, M.D.,*** Ester Hagiescu, M.D.*** and Bienvenido Oliva, M.D.***

(*Medical Specialist II, Training Officer, San Lazaro Hospital; **Senior Resident Physician, San Lazaro Hospital; ***Resident Physician, San Lazaro Hospital)

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INTRODUCTION

Varicella, one of the common benign exanthematous disease, is more severely seen in adults than in children.¹ The most frequent minor complication has been secondary bacterial infection of the skin. Today, such infections are very uncommon. Rare fatal cases are caused by one of the following complications: pneumonia, neurologic complications, malignant chickenpox (hemorrhagic varicella) or purpura fulminans.² In the San Lazaro Hospital Medical Center, a review of varicella cases with hemorrhagic manifestations was made from January to December 1987. Out of 447 cases of varicella, only 3 (0.6%) presented with bleeding - gastrointestinal bleeding. Two were females who succumbed after less than 24 hours in the ward. The third case survived.

Case Reports

Case 1

MT, a 27-year old female, single, from Malate, Manila was admitted with varicella. The illness started 6 days before admission, after exposure to varicella 2 weeks earlier. Pertinent physical findings showed a conscious, coherent, ambulatory, pale-looking patient. Temperature was 38.5°C. Vesiculopapular eruptions and scabs were visible over the face, neck, trunk and extremities.

The patient was placed on amoxicillin and supportive measures. However, after 12 hours stay in the ward, dyspnea and cyanosis developed. Despite resuscitative measures the patient died. A complete blood count showed Hgb 12 gms, RBC $3.9 \times 10^{12}/L$, WBC $6.10 \times 10^9/L$, segmenters .60, lymphocytes .33, monocytes .01, eosinophil .02, stabs .04, platelet count $160 \times 10^9/L$, CT 1 min 30 sec, BT 1 min 5 sec.

On autopsy, scattered vesiculopapular lesions with blackish fluid were seen on the skin surrounded by petechial hemorrhages. The intestinal mucosa was hemorrhagic but without ulcers.

The final diagnosis was varicella with upper G.I. bleeding.

Case 2

RV, 14 years, female, single, was already in respiratory distress when admitted with vesiculopapular eruptions and scabs over the face, trunk and extremities, plus crepitant rales over both lung fields. The illness started a week PTA. She stayed 14 hours in the ward, with progressive abdominal distention. A few minutes before death, the patient passed out frank bloody stools.

The complete blood count was: Hgb 12.9 gms, RBC $.385 \times 10^{12}/L$, WBC $5.75 \times 10^9/L$, segmenters .37, lymphocytes .59, monocytes .02, eosinophil 0, stabs .02, platelet ct $158 \times 10^6/L$, CT 1 min. 35 sec, BT 1 min 10 sec. No autopsy was done.

Final diagnosis was varicella with GI bleeding, pneumonia, acute.

Case 3

DD, a 36-yr.-old male patient was admitted with varicella of 5 days duration. Two hours before admission he passed out bloody stools amounting to a glassful. On the 2nd hospital day, massive rectal bleeding occurred (fresh blood with meaty material). Gastric lavage yielded a non-bloody fluid. Same bleeding episodes occurred on the 3rd hospital day. The patient was weak and pale with abdominal distention. At this time he had already received 3 liters of blood. The temperature was spiking in character. On the 4th hospital day he was transferred to the Family Clinic where the bleeding gradually ceased followed by defervescence of fever. Proctosigmoidoscopy did not reveal any abnormal finding. All throughout his stay in both hospitals, the patient received antibiotics, premarin IV, fluids and blood. He was discharged as recovered after 5-days.

Complete blood count showed Hgb 10.2 gms, RBC $3.21 \times 10^{12}/L$, WBC $5.15 \times 10^9/L$, segmenters .58, lymphocytes .41, monocytes 0, eosinophils .01, platelet ct. $184 \times 10^6/L$, CT 1 min 45 sec, BT 1 min 10 sec. Fecalalysis showed RBC but no ova. Widal and hemoculture were negative.

Final diagnosis was varicella with GI bleeding.

DISCUSSION

Bleeding manifestations in varicella are rare and when such occur, it may be in the form of hemorrhages both into the rash and surrounding skin or from mucous membranes.³ The onset is usually 1.2 weeks after the appearance of the rash but may occur earlier. Marsden and Coughlan⁴ recorded a case of chickenpox of exceptional severity with confluent hemorrhagic eruption.

A mild self-limited condition, febrile purpura usually begins on the 1st or 2nd day of the eruption with slight epistaxis, melena and hemorrhage into the vesicles.

In contrast, malignant chickenpox with purpura occurs during the 1st or 2nd week of the disease beginning abruptly with high fever, toxicity and bleeding from the gastrointestinal tract, genitourinary tract, and other mucous membranes. Fatalities are common and result primarily from intractable bleeding; intracranial hemorrhage or the pneumonia that often accompanies this condition.⁵ Investigation of patients with bleeding manifestations often reveals no coagulation abnormalities. In others, however, increased capillary fragility, evidence of disseminated intravascular coagulation (DIC) or frank thrombocytopenia may be found. Predisposing causes are leukemia or steroid therapy (either current or recent) but it may also affect a previously healthy individual.³ Malignant chickenpox with purpura is seen most frequently in adults and in children with deficient cellular immunity.⁶

Varicella is more severe in adults than in children.⁷ The 3 cases seen in SLH Medical Center were all adults and did not show any coagulation abnormalities or thrombocytopenia. The histories were negative for any of the mentioned predisposing causes. All had the manifestations of malignant chickenpox with purpura and probably suffered from deficient cellular immunity although no related studies were performed.

CONCLUSION

Varicella hemorrhagica is a rare but potentially a fatal disease. Research studies on this term of varicella would be of great interest and benefit to the medical practitioner.

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