

PURPURA HEMORRHAGICA COMPLICATING PREGNANCY

REPORT OF A CASE IN WHICH BOTH MOTHER AND CHILD WERE
AFFECTED AND RECOVERED*

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PURPURA hemorrhagica complicating pregnancy is a rare condition. According to Hirst,¹ the disease is generally fatal and always interrupts pregnancy, the fetus dying *in utero*. Rushmore² in 1925 made a thorough review of the literature and was able to find only forty-seven reported cases of purpura complicating pregnancy, to which he added one of his own.

The first case was reported by Barnes³ in 1867. This patient appeared to have rheumatic purpura, or Schönlein's disease. During the sixth month of her pregnancy, she suffered rheumatic pains in the joints, lumbago, vomiting, and fever. Labor followed, but the infant lived only three hours. On the day after delivery, the mother had an eruption of purpuric spots on the face, abdomen, and legs. The patient died on the following day.

Rushmore, in his review of the literature, noted the occurrence of purpura hemorrhagica in both the mother and the fetus only seven times. In Dohrn's⁴ case, many petechiae were observed during the period of pregnancy, but they disappeared at the time of delivery. The fetus, a female born in the ninth month, exhibited spots that were similar, as to number, size, and color, to those found on the mother.

Recurrence of purpura in a succeeding pregnancy was reported by Greenhill⁵ in 1923. His patient had purpura during her first and second pregnancies. In the case reported by Vignes and Stiasnie⁶ in 1921, the purpura recurred in three successive gestations during a period of ten years.

Of the forty-seven cases summarized by Rushmore, the final results were recorded in only forty-four. Twenty-six mothers died and eighteen recovered. Of the forty-two infants whose final outcome was reported, twenty-seven died and fifteen survived.

In the thirty-eight cases in which the age was recorded, it ranged from eighteen to forty-three years.

REPORT OF A CASE

A primipara, aged twenty-two, was first seen by me on July 17, 1925, during the seventh month of her pregnancy. The family history was negative for any hemorrhagic tendency. The last menstrual period took place on December 22, 1924.

Toward the end of the fifth month, the patient began to notice some small red

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spots on her body and limbs. They appeared in successive crops, the earlier ones fading after a few days. When she brushed her teeth or chewed solid food, her gums bled easily; she also had several mild attacks of epistaxis. The bleeding was easily controlled by local treatment.

On June 20, the patient was seen by a physician, at which time she was covered with petechiae. There were numerous purpuric spots on the extremities. She complained of frequent nosebleed, bleeding from the gums, slight swelling of the feet and general weakness. Her blood count revealed 2,400,000 red blood cells and 45 per cent of hemoglobin. The platelet count was 40,000, an extremely low figure that is characteristic of purpura.

When I first saw the patient, her skin and mucous membranes were pale. There were numerous petechiae scattered over the entire body. Some of the hemorrhagic spots were fading; others appeared to be of recent origin. There was a large ecchymosis on the palate and many small hemorrhagic spots on the gums and the inside of the cheeks. The spleen was not enlarged.

The patient was treated with calcium lactate and saccharated ferrous carbonate, 20 grains of each three times a day. She was also advised as to hygienic and dietary measures.

She returned on July 30, at which time the petechiae and hemorrhagic spots were found to be much fewer in number. Epistaxis was much less frequent than formerly. The red blood cell count was 3,500,000; hemoglobin, 70 per cent. The platelet count had risen to 300,000, a normal figure.

From this time on, the patient's condition improved rapidly. The petechiae became fewer in number and the purpuric spots disappeared, except for a slight ecchymosis on the upper part of the palate. There was a concomitant improvement in the platelet count, as shown in Table I. Epistaxis became infrequent, and the color of the skin and mucous membranes improved. The patient no longer suffered from weakness, and the swelling of the feet and ankles disappeared.

The patient went into labor late September 30, and delivered a girl, weighing eight pounds, eleven ounces, early on October 2. The baby had numerous petechiae over her face, trunk, and extremities. She was somewhat cyanosed but cried vigorously when handled. Nine hours after birth, and again several hours later, the child regurgitated some water mixed with blood. On the following day, she again brought up some blood-streaked liquid. On October 4, bloody urine was passed; on the following day, the stool was streaked with blood. The temperature was 101° F. The baby was then given 5 c.c. of thromboplastin, injected into the buttock.

The baby's blood count on October 5 was 6,000,000 red blood cells and 110 per cent hemoglobin. The platelet count was 40,000. The coagulation and the bleeding time, being short, were not estimated.

The petechiae present on the baby at birth gradually faded, and no new ones appeared. On October 7, there was a slight bloody discharge from the child's vulva.

The mother's blood on October 5 gave the extremely low platelet count of 20,000. The erythrocyte count was 3,400,000; the hemoglobin, 66 per cent. The coagulation time was five minutes. On many previous examinations, it had ranged from seven to eight and a half minutes. The bleeding time was four and a half minutes.

From this time on, there was progressive improvement in the condition of both mother and child. On October 14, when the patients were discharged, practically all of the hemorrhagic spots had disappeared.

On October 23, the mother had a few petechiae on her shoulders and on her left arm and leg. The baby looked healthy and there were no petechiae. On October 30, the mother showed some new petechiae on her shoulders, chest, and lower limbs, and there was an area of ecchymosis about the size of a quarter on the upper por-

tion of the palate. The baby appeared healthy and had gained weight, but there were some petechiae on the legs and ankles. The results of the baby's blood examination are shown in Table II.

On November 27, the mother still had a few petechiae on her extremities, but there were no other signs of bleeding. The baby was healthy, weighed nine pounds, 6 ounces, and showed no petechiae. When the patients were last seen on December 30, they were in perfect health and no petechiae could be found.

TABLE I
MOTHER'S BLOOD EXAMINATIONS

DATE	PLATELETS	R. B. C.	HGB. %
6-20-25	40,000	2,400,000	45
6-25-25	40,000	2,400,000	45
7- 7-25	116,000	2,900,000	59
7-13-25	58,000	2,500,000	66
8- 5-25	300,000	3,500,000	70
8-12-25	370,000	3,300,000	70
8-19-25	330,000	3,500,000	74
8-26-25	285,000	4,000,000	75
8-28-25	285,000	4,000,000	75
9- 9-25	—	2,500,000	75
9-16-25	322,000	3,500,000	74
9-23-25	300,000	3,200,000	71
10- 5-25	20,000	3,400,000	66
10- 8-25	160,000	3,420,000	70
10-31-25	200,000	3,200,000	77

TABLE II
CHILD'S BLOOD EXAMINATIONS

DATE	PLATELETS	R. B. C.	HGB. %
10- 5-25	40,000	6,000,000	110
10- 8-25	No estimation—coagulation	and bleeding time short.	
10-31-25	240,000	4,800,000	99

SUMMARY

Purpura hemorrhagica complicating pregnancy is a rare condition, only forty-eight previous cases having been reported. The occurrence of this condition in both mother and child is still more uncommon; Rushmore's extensive review of the literature cites only seven such cases.

The blood platelet deficiency in purpura hemorrhagica complicating pregnancy probably arises from some toxemia of maternal, fetal, or placental origin. The source of the blood platelets is the bone marrow, where they are formed by budding off from the megacaryocytes. The toxic substance may destroy the platelets soon after their formation, or it may destroy the megacaryocytes themselves.

The presence of purpuric symptoms in the offspring is probably the result of the absorption of toxic substances from the maternal blood.

This case is reported as a symptomatic purpura in which a primip-

ara began to show petechiae during the fifth month of pregnancy. The hemorrhagic eruption reached its maximum during the sixth month; then it gradually lessened, but did not disappear until about two months after labor. There was also bleeding from the nose and gums. The child was covered with petechiae at birth and showed a tendency to bleed soon afterward. An extremely low platelet count was found in both mother and child. The mother showed considerable anemia, but the child's red blood cell count and hemoglobin were above normal. Both patients recovered.

REFERENCES

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