

**The Course of Pregnancy, Labour, and the Puerperium in
a case of Chronic Purpura Hæmorrhagica.**

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PURPURA hæmorrhagica is a rare condition and little appears to be known of the effect of this disease upon the pregnant woman. The literature on the subject is sparse, and in such as is available no reference is made to certain features of interest that were presented during the puerperium in the case described below.

The patient was 24 years of age. When 18 weeks pregnant with her first child she came to me on account of bleeding from the gums. The family history failed to throw any light on the etiology of the condition. The father and mother are both alive and well, and there is no record of any relative having suffered from any abnormal blood condition. The patient as a baby was healthy, and never suffered from any form of rheumatism in childhood.

At the age of eight years she suffered for the first time from a spontaneous attack of epistaxis; some bright blood was vomited shortly afterwards and she was kept in bed for two or three days. Six months later she experienced an attack of definite hæmatemesis, on account of which she was admitted to a hospital, and she states that she was in bed on and off for some months. It was at this time that purpuric spots first appeared on the legs. At 11 years there was a further hæmatemesis. She noticed about this time that any cuts she received bled profusely, and attacks of epistaxis were frequent.

When 12 years and 10 months old she menstruated for the first time. There was nothing abnormal in connexion with this first menstrual period, either as regards the amount of blood lost, or the duration of the flow. On the second occasion that she menstruated, however, it is stated that the flow was so excessive that she was in bed for a week, and her condition necessitated the administration of several saline injections by the rectum. After this and up to the time when she married and became pregnant, the menstrual periods were irregular, the intervals varying from three to eight weeks. She stayed in bed for a day or two at each period because of the excessive flow. Crops of purpuric eruptions used to appear on the limbs and body at intervals, but otherwise there was no inconvenience.

During pregnancy there were seven or eight attacks of hæmate-

mesis. In the eighteenth week she suffered from troublesome bleeding from the gums, and it was this that first brought her under my observation. At this time, small petechial hæmorrhages were present over both legs below the knees. The bleeding from the gums ceased after a few days, and pregnancy ran a normal course until the 36th week when she contracted influenza, then epidemic in the district. On the 8th day of the disease, during convalescence, she went into labour.

The first stage of labour was uneventful and not prolonged. Towards the end of the second stage, however, when the head was on the perineum, the uterine contractions weakened, and in the intervals between the pains, bright blood began to trickle away from the vagina. Chloroform was administered and the head was easily delivered with forceps. The urine removed by catheter before delivery was reddish in colour, and later was found to contain blood. A small tear involving the fourchette only, gave rise to troublesome oozing, and three catgut sutures were inserted to control this. The placenta separated and descended into the vagina without difficulty and without excessive hæmorrhage. Pituitary extract 1 cc. was given immediately after placental separation.

The child, a male, appeared to be two or three weeks premature but otherwise healthy. He breathed spontaneously immediately after delivery. About 12 hours after birth it was noticed that the scalp of the child was puffy and discoloured over both sides of the head, and purplish-blue discolouration extended down along the course of the sterno-mastoid muscles. A generalized purpuric eruption appeared on the 3rd day and on the 6th day the child died, intensely jaundiced. There was no melæna, and no apparent hæmaturia. A post-mortem examination was not made.

The first fortnight of the puerperium gave rise to but little anxiety on behalf of the mother. On the 6th day the breasts had become congested, the temperature rose to 100.2° F., and the pulse-rate to 104 per minute. This fever subsided within twenty-four hours. On the 7th day a smart epistaxis occurred. By the 10th day of the puerperium the lochia had assumed the usual yellowish-white colour, and the uterus could not be felt above the symphysis pubis. On the 15th day the patient was allowed up in a chair. The following day the nurse stated that a large clot had been passed, but this was not kept for inspection. The patient was kept in bed, and on the 17th day of the puerperium, as there was a sero-sanguineous discharge present, a vaginal examination was made. The cervix was dilated, and a soft body was felt to be projecting through it. This was gently expressed by pressure from above, and on examination proved to be an almost perfect cast in blood-

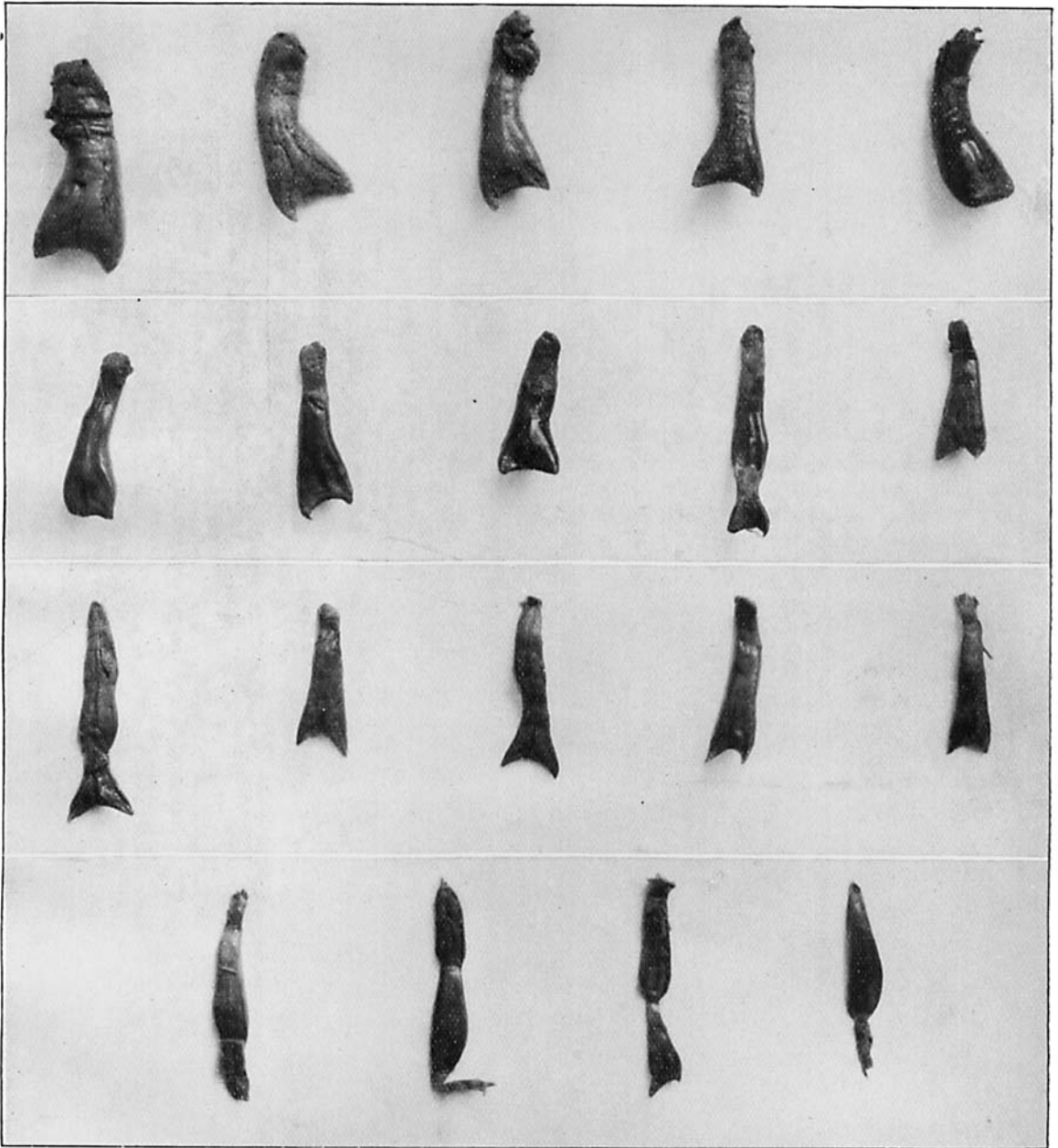
clot of the cavity of the puerperal uterus. This particular cast is the first one shown in the accompanying photograph, and measured 4 ins. in length and $1\frac{3}{4}$ ins. at its greatest breadth.

Similar casts of the uterus, progressively diminishing in size, were passed during the next 32 days, 21 casts in all being thus expelled. During the first 12 days of this period 14 casts were passed, and the remaining seven appeared at intervals during the following 20 days. All the casts when freshly expelled were bright red in colour, and in several of them, as seen in the photographs, there were horny projections of blood-clot corresponding to the openings of the Fallopian tubes. Several of the casts passed towards the end were in reality conjoined double or treble casts. Apart from the casts, very little blood was passed by the vagina, the discharge being serous in character. On the 28th day of the puerperium (by which time 14 casts had appeared) a blood-count made by Dr. H. Catto showed Hb. 55 per cent., R.B.C. 1,448,000 per cm.m.—30 per cent., colour index 1.8. The red corpuscles varied in size, shape, and hæmoglobin content. Diffuse polychromasia was seen, and four nucleated red corpuscles were encountered during a count of 200 leucocytes. The white corpuscles were neither increased nor diminished in absolute numbers.

After the passage of 4 or 5 casts calcium lactate gr. 10 was administered thrice daily, and pituitary extract 1 cc. was given each day hypodermically for 7 days. On the 26th day of the puerperium 25 ccs. of normal horse serum was given intramuscularly, and this dose was repeated two days later. From this time the general condition of the patient seemed to improve, and the passage of the casts became less frequent. The last cast appeared on the 48th day of the puerperium, and 6 days later all vaginal discharge had ceased. About 72 days after confinement, purpuric spots appeared on both legs, under the conjunctivæ, and under the mucous membrane of the lips and tongue. A month later the patient was well and about, but still had purpuric spots on the legs. Three months after confinement a further blood count was done by Dr. Catto who reported Hb. 75 per cent., R.B.C. 4,576,000 per cmm., colour index .82. Abnormalities of staining and nucleation were not observed, but the red corpuscles still showed considerable variation in size and shape.

At the present time—12 months after confinement, the patient is quite well, and doing her ordinary duties. Occasionally crops of purpuric spots appear on the legs, but there has been no bleeding from mucous membrane, and the catamenia have not yet returned.

The diagnosis of chronic purpura hæmorrhagica in this case rests mainly on the previous history, and the clinical findings.



Photograph showing 19 of the 21 blood-casts of the uterus expelled during the puerperium by a woman suffering from chronic purpura hæmorrhagica.

Bensaude and Rivet¹ describe a continuous and an intermittent form of chronic purpura; the intermittent being the commoner condition. They state that the duration of this affection is variable, attacks in some cases having occurred over a period of 20 years. They have observed 14 cases and collected 20 others from the literature. In one case there was an interval of 7 years between the second and third attacks. Pratt,² in an analysis of 194 cases of idiopathic purpura, found that in 20 of them the disease had persisted for a year or more, and in one case symptoms were present for 36 years. This patient had frequently recurring attacks of epistaxis, with occasional crops of purpura from her 10th year.

In the earlier literature some confusion is caused by the description of pregnancy in hæmophiliacs and attempts to differentiate this from pregnancy in purpuric patients. Bulloch and Fildes,³ in a study of over 900 papers on hæmophilia, found no case in a female which bore more than a superficial resemblance to the disease as it occurs in the male, and since their monograph on the subject it is generally recognized that manifestations of hæmophilia are confined to the male sex. Bensaude and Rivet¹ consider purpura hæmorrhagica a pathological condition of the blood, and in the diagnosis they lay stress on a reduction of the blood-platelets, a normal coagulation-time, no retraction of the clot, and no extrusion of serum. Duke⁴ states that the bleeding-time is prolonged in purpura hæmorrhagica, and tests this by making a small incision in the lobe of the ear, and at intervals of 30 seconds blotting up the blood. He states that in a normal person hæmorrhage stops in one to three minutes.

In the case described above no blood-platelet count was done. When the patient was convalescent the time of clotting was 6 minutes, which is within normal limits, and the bleeding-time as found by Duke's method was about 8 minutes.

John Phillips⁵ in 1891 found 6 cases recorded of purpura hæmorrhagica complicating pregnancy, and reported on one he himself encountered. Of the 7 cases he mentions 6 ended fatally, 5 of the patients succumbing within 24 hours of delivery from post-partum hæmorrhage. In all the cases he describes the first symptoms of purpura appeared during the pregnancy, and in all but his own the birth was two months or more premature. There is a case described by Kehrer⁶ of a woman whom he thought to be a hæmophiliac and who, in the second half of her third pregnancy, suffered from profuse epistaxis, and later metrorrhagia accompanied by the passage of casts of the uterus. The patient died from the resulting anæmia. Dohrn,⁷ and also Hanot and Luzet,⁸ mention cases in which purpura was transmitted to the infant, but in these cases the purpura in the mother was a secondary condition.

The chief points of interest in the case that I have described are :

1. The length of time (14 years) during which purpuric symptoms had been intermittently present.
2. The fact that pregnancy continued up to the 37th week, and resulted in the birth of a living child.
3. The absence of any immediate post-partum hæmorrhage.
4. The delayed appearance of blood casts of the uterus, commencing on the 16th day of puerperium, and extending over a period of 32 days.
5. The clinical manifestations of the disease in the infant.

REFERENCES.

1. Bensaude, R., and L. Rivet. *Arch. gén. de Méd.*, 1905, i, 193, 272.
2. Pratt, J. H. Osler and Macrae. *System of Medicine*, 1915, iv, 713.
3. Bulloch, W., and F. Fildes. "Hæmophilia," *Francis Galton Eugenics Laboratory Memoirs*, 1911.
4. Duke, W. W. *Arch. int. Méd.*, 1912, x, 445.
5. Phillips, J. *Trans. Obstet. Soc. Lond.*, 1891, xxxii, 390.
6. Kehrer, F. A. *Arch. f. Gynäkol.*, 1876, x, 201.
7. Dohrn, R. *Arch. f. Gynäkol.*, 1874, vi, 486.
8. Hanot, V., and C. Luzet. *Ann. de Dermatologie et de Syphilographie*, 1891, ii, 185.