Many of the dogs used in the rocking experiments of Hemingway and Neil (1944) had their upper spinal cord cut and had the low blood pressure of "spinal shock." Yet rocking maintained their circulation and was more effective than Schäfer's method or respiration by pump as regards oxygen consumption in the body. Schäfer's compression method could not be expected to expand the solid lungs of the newborn infant: they need expansion before they can be compressed.

Eight of Dr. Forsyth's cases were due to strangulation of the cord round the neck (nerve cells starved and anoxic); five were instrumental deliveries. He did not rock the few cases of cerebral haemorrhage which were born dead or died after a few gasps. Two recent cases were: (1) A breech case, born in white asphyxia with a faintly beating heart. The face turned pink after four or five double rocks, but the first respirations occurred only after rocking for eight minutes. (2) In a boy delivered by caesarean section the heart was impalpable. The first breath occurred after rocking for seven minutes, but the change in colour from white to pink was noted some minutes *before* the first gasp. This illuminating precedence (circulation *before* respiration) was observed by Dr. Forsyth in all his 11 cases. Has anyone observed it without rocking? I cannot get an answer. No one need be deterred from rocking by fear that it may increase a cerebral haemorrhage: the harm has already been done and the infant will soon be dead or better dead.

Dr. Forsyth's method in his first case was to rock the baby in his large hands before the fire (success after 35 minutes). Later he found it better to stand holding the baby, wrapped in a towel and lying on its side, to his chest. Thus he could hear the respirations, and the nurse could suck mucus from the throat with a No. 10 rubber catheter. He could rock the baby—as women do—by swaying his body through some 40 to 70 degrees each way without fatigue. I have verified these angles and find them easily attained if the knees are bent a little alternately. Gravity would have longer columns of blood to act on if the infant's legs were extended and the arms raised straight overhead. Ten double rocks a minute are enough. Presumably steep angles are best.

For clarity, I have so far deferred the CO₂ factor. In an important paper by Comroe and Dripps (1946) two adults with severe cerebral injury were investigated carefully. They survived about five hours without breathing or consciousness. Shock had reduced their blood pressure to 40–70 mm. Hg. Hence their condition resembled cases of newborn asphyxia: the colour was not recorded. They were kept alive by infusions and intratracheal oxygen for two to three hours, which oxygenated their blood (fully at first) and gave them a pink colour. Yet their arterial blood was found by analysis to be poisoned by CO₂ (tension 314 mm. Hg, equivalent to 44% alveolar CO₂), which did not betray itself to the clinician. This great excess of CO₂ would narcotize the nerve cells, depressing respiration and blood pressure. It could be washed out only by expansion and contraction of the lungs. Schäfer's method was tried, but it yielded only the "completely inadequate" tidal air of 72 to 117 c.cm., owing to lack of tonus in elastic recoil. Thus "the method fails when it is most needed—in deep asphyxia which abolishes tonus. On the other hand, Eve's rocking method gave the adequate tidal air of 286 to 500 c.cm., as it is independent of tonus. Circulatory benefits could not be measured."

From this paper we learn that our cases of newborn asphyxia are presumably being poisoned by excess of CO₂ until the lungs work. (This could be verified by blood analysis promptly after death in cerebral haemorrhage cases.) Also we do not know whether rocking expands the

lungs effectively. (This could be ascertained by x-ray examination or at necropsy in cases of failure.) Meanwhile it seems reasonable to spend a few seconds in gentle mouth-to-mouth inflation of the lungs. *Then* we could confidently expect rocking to oxygenate the lungs and blood, sweep out excess of CO₂, and provide a circulation for the brain and heart muscle. Oxygen can be added, often with advantage. But to add 7% CO₂ to a probable 44% excess is deplorable poisoning.

I believe a co-ordinated research on some such lines would save many future citizens and much maternal anguish. I have tried in vain to compare Dr. Forsyth's results with those obtained in hospitals by other methods. There seems a deplorable lack of co-ordinate study in these awkward emergency cases. In the U.S.A., where 30,000 babies die annually of asphyxia, Dr. P. F. Flagg, chairman of the Asphyxia Committee of the American Medical Association, makes the same lament.

Some of my conclusions must be tentative until Dr. Forsyth's evidence is properly confirmed—notably, that if rocking restores the circulation the respiration restores itself.

My thanks for help are due to Professor A. Hemingway, Professor Alan Moncrieff, and Dr. Doreen Daley.

REFERENCES

- Comroe, J. H., jun., and Dripps, R. D. (1946). *J. Amer. med. Ass.*, **130**, 381.
Eve, F. C. (1947). *British Medical Journal*, **2**, 295.
Hemingway, A., and Neil, E. (1944). *Ibid.*, **1**, 833.
Schmidt, C. F., et al. (1945). *Amer. J. Physiol.*, **143**, 45.

GYNATRESIA: REPORT OF THREE UNCOMMON CLINICAL TYPES

BY

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Anomalies due to aplasia of the female genital tract are not infrequent and, depending on the extent and location of the aplasia, all varieties and degrees of gynatresia may result. The more complex congenital abnormalities are usually associated with a non-functioning uterus and are rarely of much practical importance. I have recently had under my care three unusual types of gynatresia, with certain features in common. Failure of canalization was limited in extent and localized to the cervical or vaginal segments of the Müllerian tract, and the symptomatology was dependent upon the presence of a functioning uterus. Two were examples of haematometra due to atresia at the level of the cervix, and the third was a case of hydro-colpos, a condition in which an accumulation of watery or mucoid fluid in the vagina may produce serious mechanical effects during infancy and childhood.

Congenital Atresia of the Cervix with Haematometra

Case Report.—A married woman, aged 31, attended the Cardiff Royal Infirmary in September, 1945, complaining of right-sided abdominal pain. The pain had come on in attacks at irregular intervals for the previous twelve months, and these were increasing in severity. She had never menstruated. On speculum examination the portio and external os had a normal appearance, but the cervical canal was represented by a shallow blind depression, and the uterus was enlarged to the size of a three-months pregnancy. At laparotomy the uterus was found uniformly enlarged, and there was some distension of the

Fallopian tubes with blood. A longitudinal incision in the anterior uterine wall released about 4 oz. (114 ml.) of old menstrual blood, and the uterine cavity was found to end below in a blind pouch at the level of the isthmus. After separation of the bladder the anterior surface of the cervix was exposed and the vagina opened. A column of tissue, 2 cm. in length, which intervened between the external os and the uterine cavity was excised and a new canal fashioned over an indwelling catheter. Three weeks later the cervical canal was easily dilatable to No. 8 Hegar, and two years after the operation the patient was menstruating regularly, she was free from pain, and the uterus was normal in size.

Haematometra is most commonly caused by occlusion of the lower end of the vagina, and it then occurs as a secondary though important complication of haematocolpos. Stagnation of blood in the uterine cavity, due to obstruction at the cervical level, is usually an acquired condition and develops as a result of scarring following operation or childbirth. Haematometra due to strictures of obstetric origin generally occurs after difficult confinements associated with infection and much cicatrization (Padovani and Vuillième, 1931; Bernstein and Walter, 1939; Tait, 1945; Allen, 1947). Post-operative haematometra have usually been recorded after plastic operations on the cervix (Bernstein and Walter, 1939), but they have also occurred following the use of radium for benign uterine haemorrhage (Herring, 1939). In many cases of acquired stricture the stenosis is incomplete and, while blood accumulates within the uterus, there is some leakage past the obstruction. As a rule the distension by blood involves the entire uterine cavity, but Lifvendal (1933) has described a post-operative stricture of the cervix in which the haematometra was confined to the cervical canal. Retention of the menses is a quite unusual complication of carcinoma of the cervix, as this disease rarely causes stenosis of the cervical canal during menstrual life (Maliphant, 1939). Malignant occlusion of the cervix is predominantly a post-menopausal phenomenon, and pyometra is the common sequel. Most of the recorded cases of haematometra due to acquired stenosis of the cervix have required treatment by hysterectomy.

Congenital occlusion of the cervix is a condition of great rarity, and few examples have been recorded in the literature. Cervical aplasia is usually associated with more complex developmental anomalies of the genital tract, and the uterus is then rarely developed enough to perform the function of menstruation (Bonney and McIndoe, 1944). Bernstein and Walter (1939) described 10 cases of haematometra of congenital origin, but they were all secondary to haematocolpos. Similarly, in Simon's (1928) series from the Mayo Clinic there was not a case of haematometra due to cervical atresia in an otherwise normal genital tract, but two recorded examples of this condition have been noted in the literature. Napoleao (1931) described congenital atresia of the cervix in a woman aged 37 who had complained of attacks of abdominal pain since the age of 15. There was a hypogastric swelling equal in size to a five-months pregnancy. The vagina was normal, the cervix nulliparous, and the cervical canal was obstructed by a septum at the level of the isthmus. When this was snipped

half a litre of dark menstrual blood escaped. Monjardino (1936) also reports a case—in a young woman of 18—in which there was an imperforate septum across the cervix, and supravaginal hysterectomy was performed.

Haematometra in Atresic Horn of Uterus Bicornis Unicollis

Case Report.—A girl, aged 13, was brought to the Cardiff Royal Infirmary in September, 1947, on account of severe dysmenorrhoea. Her menses had started nine months previously, and were regular, lasting 7 days every 28 days. The menstrual pain was mainly localized to the left iliac fossa, but also extended to the buttock and to the left leg. For the past month she had also complained of dysuria and pain on defaecation. The girl was well developed and in good condition. On examining the abdomen a circumscribed spherical swelling was evident rising from the left side of the pelvis. Rectal examination showed that this was the upper pole of a mass which filled the left half of the pelvic cavity. The cervix was normal, and the uterus could not be distinguished apart from

Diagrammatic reconstruction of haematoma of blind horn of uterus bicornis unicollis

the main swelling. The provisional diagnosis was endometrioma.

On opening the abdomen free blood was found in the peritoneal cavity, and the pelvic organs had the appearance shown in the Diagrams. From the attachments of the round ligaments it was evident that the "tumour" was the distended left horn of a bicornuate uterus. It was about the size of a large orange. The right horn and corresponding appendages were normal, and were pressed against the right wall of the pelvis. Blood from the distended horn had been forced into the Fallopian tube to form a haematosalpinx, and blood had leaked into the peritoneal cavity. The left ovary was enlarged by oedema. On incising the distended uterine horn about 1/2 pint (284 ml.) of dark menstrual blood was released. No communication could be made out between this horn and the cervical canal, so it was excised together with the haematosalpinx. Convalescence was smooth, and menstruation has since been normal and painless. Histological examination of the blind horn showed typical uterine structure. Its endometrium showed hyperplasia with secretory changes.

Uterus bicornis is often symptomless and may be found accidentally in the course of an abdominal operation for some other condition. When one horn is atresic and fails to communicate with the cervical canal it may be the site of an ectopic pregnancy, but it is unusual for its endometrium to undergo menstrual changes. When this happens it is responsible for many diagnostic problems. Menstruation occurs normally from one half of the uterus, with the coincident development of a haematometra on the opposite side, and the condition is characterized by dysmenorrhoea of increasing severity. The dilated horn has usually been mistaken for a neoplasm, and the true state of affairs has become apparent only at operation. Even then, unless the relation of the round ligament to the swelling is noted, it may be mistaken for a blood cyst of the broad ligament. Wilson's (1925) case was that of a girl aged 14 who had menstruated four times and complained of severe dysmenorrhoea. As the nature of the condition was in doubt the uterus and adnexae were removed. Barris (1924) has described the condition in a woman aged 20, with a history of dysmenorrhoea for 18 months. Bernstein and Walter's (1939) case was that of a 27-year-old nulligravida, in whom the pre-operative diagnosis was fibroid uterus with ovarian

cyst. Simon (1928) reported unilateral haematometra in an incomplete uterus didelphys in a girl aged 17 who had complained of severe dysmenorrhoea for four years. These three cases were treated conservatively by resection of the atresic horn.

This form of uterus bicornis asymmetricus, although encountered infrequently, is a condition of some clinical importance. The stagnation of blood in the blind horn produces a characteristic clinical picture, and although the findings on palpation are often indefinite the history of intense dysmenorrhoeic pain so soon after puberty should make possible the correct diagnosis and appropriate conservative treatment.

Hydrocolpos

Case Report.—A girl, aged 14, was admitted to the Cardiff Royal Infirmary in March, 1944, with acute retention of urine. There was a suprapubic swelling, which partly disappeared on catheterization. The vagina was occluded by a retrohymeneal membrane, and it was evident on rectal examination that it was distended with fluid. The case was regarded as one of cryptomenorrhoea with haematocolpos, but on excising the membrane, which was unusually thick, about 1½ pints (850 ml.) of turbid watery fluid were released. The uterus and appendages were normal. The fluid contained many epithelial cells, and its protein content was 0.6%. It did not contain any fat globules, and was sterile on culture. Normal menstrual periods began five months after the operation and have continued normally since.

Congenital occlusion of the lower end of the vagina is not an uncommon condition, but it is rarely responsible for symptoms before puberty. The object of this report is to draw attention to a clinical entity characterized by the retention in the vagina of enough watery or mucinous fluid to produce symptoms in infancy and childhood. In the literature the condition has been described as "hydrocolpos" or "mucocolpos," and the fluid as "turbid serous," "milky," or "mucinous" in character. The retained fluid, which is regarded as the accumulated secretions of the cervical and uterine glands, contains desquamated epithelial cells with some leucocytes, and is sterile on culture. A variable amount of mucoid vaginal discharge is not uncommon in the newborn, and it is probable that in most cases of vaginal atresia there is some accumulation of uterine secretions, but not in sufficient quantity to produce symptoms until augmented at puberty by the products of menstruation. The large accumulations of sanguineous fluid in some cases of cryptomenorrhoea after one or two attacks of abdominal cramps may represent cases of pre-existent hydrocolpos into which the first few menstrual bleedings have flowed. When abnormal activity of the uterine glands coexists with vaginal occlusion such a collection of fluid may form in the genital tract that serious effects may be produced long before the onset of menstruation.

The cause of the abnormally copious secretion of fluid is obscure, but it is probably related to the activity of the uterine glands, and this is controlled by the oestrogenic hormone. The foetus *in utero* is exposed to the influence of maternal oestrogens, and also, according to Dobszay (1938), for the first two weeks after birth. The oestrogens of maternal origin are responsible for the vaginal discharge often observed in newborn infants, and also for the transient uterine bleeding and breast enlargement which may occur. During this phase there is histological evidence of increased activity of the uterine and cervical glands, and the vaginal epithelium resembles the adult type. The vaginal epithelium of adults and of infants during the first few weeks of life contains glycogen, but this is not found in the vaginal epithelium of older children before the age of puberty (Dobszay, 1938). When the infant is about 2 weeks old this change occurs in the character of the vaginal epithelium, and the uterine glands become less active in appearance (Mahoney and Chamberlain, 1940).

The morbid histology of hydrocolpos in infancy has been described in operation and necropsy specimens by Mahoney and Chamberlain (1940). They found distinct evidence of activity of the uterine glands and varying degrees of keratinization of the vaginal epithelium. The great variation in the amount of uterine secretion is considered by them to be dependent upon the degree of oestrogen stimulation, and if this view is correct increased glandular activity would be expected to occur during foetal and early neonatal life, and again shortly before puberty. It is noteworthy that most of the recorded cases of hydrocolpos fall into one or other of these two age groups. The first category includes infants who either are born with enormous collections of secretion in the vagina or have accumulated such secretions during the first few weeks of life. The second category is comprised of cases in which symptoms of fluid distension of the vagina develop shortly before puberty, when there is awakening activity of the uterine glands.

The mechanical effects of distension of the vagina are well recognized. The vagina is capable of enormous distension even in infancy, and will accommodate a large collection of fluid before the uterus is affected. In this phase the uterus is merely displaced upwards and rides on the greatly distended vagina as a small nodule. When the intravaginal fluid pressure is sufficiently increased haematometra or hydrometra follows, with reflux into the Fallopian tubes. The distension of the vagina also causes upward displacement of the bladder and stretching of the urethra and bladder neck, so the commonest initial symptom in both haematocolpos and hydrocolpos is retention of urine. Other pressure effects in infancy, such as intestinal obstruction and oedema of the lower extremities, have been described (Morris, 1945).

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Hydrocolpos in Infancy

It is during the first two months of life that hydrocolpos has its most serious consequences. The literature of the

Summary of the salient features of the recorded cases of hydrocolpos and hydrometrocolpos

Age	Clinical Features	
In infancy:		
1 day	Found at necropsy in a baby with imperforate anus and intestinal obstruction. 1 oz. (28 ml.) of light yellowish mucoid material in vagina	Mahoney and Chamberlain (1940)
2 days	Large abdominal tumour. Several ounces of turbid fluid released per vaginam	" "
17 "	Progressive abdominal enlargement with retention of urine. Several ounces of mucinous grey fluid released p.v.	Rosenblatt and Woolley (1943)
3 weeks	Large abdominal tumour with retention of urine. Large amount of turbid mucoid fluid released during panhysterectomy	Mahoney and Chamberlain (1940)
7 "	Retention of urine, intestinal obstruction, and oedema of legs. Laparotomy followed by incision of hymen	Morris (1945)
8 "	Retention of urine, abdominal swelling and diarrhoea. Laparotomy followed by incision of hymen and release of 2 oz. (56 ml.) of milky fluid	Mahoney and Chamberlain (1940)
8½ "	Retention of urine, abdominal tumour, vomiting, and diarrhoea. Laparotomy followed by incision of hymen and release of 2 oz. of milky fluid	Kereszturi (1940)
11 "	Cystic swelling at vulva. 1 dr. of mucus released p.v.	Spencer (1916)
Pre-pubertal group:		
12 years	Abdominal swelling. Two quarts (2.27 litres) of milky chyle-like fluid released per vaginam. Menstruated 5 months later	Bowen (1941)
14 "	Abdominal swelling and backache. Laparotomy and 2,200 ml. of serous fluid removed by puncture of "pelvic cyst"	Althoff (1941)
14 "	Abdominal swelling with retention of urine. 1½ pints (850 ml.) of turbid watery fluid released per vaginam. Menstruated 5 months later	Maliphant (1948)

condition was reviewed in 1940 by Mahoney and Chamberlain, and cases have since been reported by Kereszturi (1940), Rosenblatt and Woolley (1943), and Morris (1945). It is one of the causes of large cystic abdominal swellings in female infants, and the rational and only treatment required is excision of the occluding membrane. However, without inspection of the vulva and rectal examination the true pathology is apt to be overlooked, and laparotomy with its attendant dangers in a young infant may inadvertently be employed.

The infant is distressed, and progressive abdominal enlargement and retention of urine are usually conspicuous symptoms. The main abdominal swelling is distended bladder, and after catheterization a much smaller second swelling is noted in the lower abdomen. The vagina is occluded by a bluish membrane which bulges when the child strains, and rectal examination reveals fluctuant distension of the vagina. Mahoney and Chamberlain have drawn attention to the diagnostic value of injecting radio-opaque substances through the point of atresia, and Rosenblatt and Woolley confirm the value of roentgenoscopy in establishing a correct diagnosis.

Hydrocolpos may cause alarming symptoms two days after birth (Mahoney and Chamberlain, 1940), and cases have been recorded in infants of 17 days (Rosenblatt and Woolley, 1943), 7 weeks (Morris, 1945), and 8½ weeks (Kereszturi, 1940). Morris's case of hydrometrocolpos was complicated by hydronephrosis, intestinal obstruction, and oedema of the lower half of the body. An instructive case was reported by Kereszturi in an infant of 8½ weeks. The imperforate condition of the hymen was noted, but was not considered to be of clinical significance. A barium enema showed the colon to be displaced upwards, and intravenous urograms revealed bilateral hydronephrosis with obstruction of the ureters at the uretero-vesical junction. As the infant was losing ground and the diagnosis was "pelvic tumour of unknown origin" laparotomy was performed. A cystic tumour was found filling the pelvis and pushing the bladder upwards and forwards; pressure on this tumour caused bulging of the hymen. Before the abdomen was closed 2 oz. (56 ml.) of milky fluid was released from the vagina by incising the hymen, whereupon the pelvic tumour collapsed. In this case the hydrocolpos and hydronephrosis were complicated by pyelonephritis with severe constitutional symptoms, and the urograms did not return to normal for a period of 15 months.

Spencer (1916) has described mucocolpos in a baby girl, 11 weeks old, in which the condition was recognized before the onset of obstructive symptoms. The mother had noticed a swelling in the vulva which became a little more prominent when the baby cried. An elliptical piece of the imperforate hymen was excised and about 1 dr. (3.5 ml.) of mucus escaped. Spencer stressed the importance of examining as a routine the vulvae of female babies at birth. Unless this is done any vaginal occlusion usually escapes notice until menstruation occurs, and the genital tract may then receive irretrievable damage.

Hydrocolpos in Girls shortly before Puberty

Records of two cases of this type were found in the literature and I have now added a third. The clinical features are indistinguishable from those of haematocolpos, although the absence of monthly twinges of abdominal pain may be significant.

Bowen's (1941) case was that of a girl aged 12 who complained of lower abdominal discomfort and had a soft symmetrical mass extending from the symphysis to the umbilicus. Incision of the vaginal septum released 4 pints (2.27 litres) of milky chyle-like fluid. The girl menstruated

five months later. In Althoff's (1941) case, quoted by Morris, a 14-year-old girl complained of abdominal pain and backache for six weeks. The hymen was imperforate, and when it was punctured 50 ml. of cloudy serous fluid was withdrawn. As the nature of the condition was still in doubt the abdomen was opened and 2,200 ml. of the same type of fluid was obtained by aspiration of a large cyst-like structure which arose from the pelvis.

Summary

Three types of gynatresia are described. They each had distinctive clinical features and were amenable to conservative treatment. Developmental anomalies of this order, though rare, are of much practical interest, for unless recognized they may be submitted to needlessly radical operative procedure.

REFERENCES

- Allen, H. Sandeman (1947). *J. Obstet. Gynaec. Brit. Emp.*, **54**, 377.
 Althoff, F. (1941). *Zbl. Gynäk.*, **65**, 1938.
 Barris, J. D. (1924). *Proc. R. Soc. Med.*, **17**, (Obst. Sect.) 57.
 Bernstein, P., and Walter, R. (1939). *Amer. J. Obstet. Gynec.*, **37**, 126.
 Bonney, V., and McIndoe, A. H. (1944). *J. Obstet. Gynaec. Brit. Emp.*, **51**, 24.
 Bowen, F. H. (1941). *Amer. J. Obstet. Gynec.*, **42**, 144.
 Dobszay, L. (1938). *Amer. J. Dis. Child.*, **56**, 1280.
 Herring, A. J. (1939). *J. Obstet. Gynaec. Brit. Emp.*, **46**, 301.
 Kereszturi, C. (1940). *Amer. J. Dis. Child.*, **59**, 1290.
 Lifvendal, P. (1933). *Amer. J. Obstet. Gynec.*, **26**, 173.
 Mahoney, P. J., and Chamberlain, J. W. (1940). *J. Pediatr.*, **17**, 772.
 Maliphant, R. G. (1939). *J. Obstet. Gynaec. Brit. Emp.*, **46**, 874.
 Monjardino (1936). *Ibid.*, **43**, 1241.
 Morris, Paul (1945). *Amer. J. med. Sci.*, **210**, 751.
 Napoleao, D. (1931). *J. Obstet. Gynaec. Brit. Emp.*, **38**, 692.
 Padovani, P., and Vuillème, J. (1931). *Ibid.*, **38**, 175.
 Rosenblatt, M. S., and Woolley, P. V. (1943). *Ann. Surg.*, **117**, 635.
 Simon, H. E. (1928). *Surg. Gynec. Obstet.*, **47**, 356.
 Spencer, H. R. (1916). *Lancet*, **1**, 823.
 Tait, F. S. (1945). *British Medical Journal*, **1**, 365.
 Wilson, J. St. G. (1925). *J. Obstet. Gynaec. Brit. Emp.*, **32**, 127.

Medical Memoranda

Acute Purpura with Neurological Complications Associated with "Sedormid" Therapy

The following case report seems to be interesting enough to merit publication.

CASE HISTORY

The patient, a woman aged 30, had been admitted to the Bristol Royal Infirmary three months previously for a thyroidectomy, and after her discharge had been given "sedormid" by her doctor. She had taken about 14 tablets at very irregular intervals in the course of two months. Three days before admission she had noticed a purpuric rash on her arms and legs, and on the day of admission she had had haematemesis, haematuria, and melaena.

On examination a widespread purpuric rash was seen; but the spleen was not palpable and there was no enlargement of the peripheral lymph glands. Macroscopic haematuria was present. A blood count showed: red cells, 3,000,000; haemoglobin, 56%; white cells, 3,600, with normal differential count. Bleeding time was 26½ minutes; clotting time, 8½ minutes; clot retraction was very poor. Only one platelet was seen in the whole film and no estimate of their number could be made.

The next day, after a transfusion of 2 pints (1.14 litres) of fresh blood, there appeared a right-sided facial palsy of lower motor neurone type. On the following day dissociated anaesthesia (loss of pain and temperature, normal to cotton-wool) developed on the right side of the face, greater in the first and second division of the trigeminal nerve than in the third. No other abnormal physical signs were elicited, except for the right facial palsy previously noted, but the patient complained of a severe occipital headache and neck stiffness. Three days later she had had no further haemorrhages and her bleeding time was now 8½ minutes, although the platelets were still too few to make an accurate count. Her progress afterwards was uneventful, and on discharge 10 days later the platelets had risen to normal, and her bleeding time was now 4 minutes.

Nine days later she was readmitted, having had a further haematemesis and massive purpura; no platelets were seen in her blood. During the next 13 days she received 11 pints (6.25 litres) of blood—5 pints (2.84 litres) being fresh blood—and at the end of this time the platelets had risen to 3,000 per c.mm. and the haemoglobin