Comment.—It is probable that this patient's non-thrombocytopenic purpura was an example of so-called anaphylactoid purpura. It is noteworthy that she developed indurated areas of both legs before the onset of the purpura and that these subsequently ulcerated. The most reasonable conjecture would appear to be that both the indurated areas and the purpura were independent manifestations of the same underlying allergic state.

Discussion

We have no doubt that leg ulcers which persist for several months are decidedly rare in non-thrombocytopenic purpura. Davis (1948) reported 44 cases of Schönlein-Henoch purpura without mentioning ulceration among the skin lesions. Gendel (1948), in a review of the reported cases of chronic leg ulcer in diseases of the blood, likewise does not mention this association. Chronic leg ulcers have been observed in a number of blood dyscrasias, such as congenital haemolytic anaemia, sickle-cell anaemia, polycythaemia, splenic anaemia, thrombocytopenic purpura, and Gaucher's disease, in all of which splenomegaly is a frequent finding, and it has been usual to attribute the liability to leg ulceration to some abnormal action of the spleen.

In thrombocytopenic purpura the occurrence of leg ulcers is also rare, being reported for the first time by Witts (1942). It is worth mentioning that the two cases which he reported did not show splenomegaly and that splenectomy carried out on one of them had no effect upon the ulcers.

The only reference to the occurrence of leg ulcers in non-thrombocytopenic purpura appears to be the one made by Osler (1914), who states that necrotic areas may occur in purpuric states. "When a localized infiltration of blood and serum is very intense in a patch [of purpura] of considerable size, bullae form and the superficial layers of skin necrose, leaving an open ulcer." In describing a number of cases, he includes that of a girl aged 14 years who was treated in the Radcliffe Infirmary for Henoch's purpura. Although no platelet count is recorded, there seems to be little doubt from the clinical description that the diagnosis was correct. She suffered from pains in the legs, purpura, haematuria, and albuminuria. There were extensive haemorrhagic lesions on the legs, many of which broke down, leaving ulcers which took a long time to heal.

Osler's description of the genesis of skin ulceration in purpura is an apt account of how ulceration developed in Cases 1 and 2 of the present series. In Case 1 there was the possibility that a previous venous thrombosis may have been an additional cause, but we have given reasons for concluding that this was not a major element. Case 3 is totally different in that ulceration developed in indurated erythematous areas which appeared on the legs some months before the onset of purpura.

Summary

Three cases of leg ulceration in non-thrombocytopenic purpura are described.

The aetiology of the purpura was different in the three cases, one being a classical example of Schönlein-Henoch purpura, one a toxic purpura, presumably due to phenylbutazone, and one possibly a manifestation of an obscure allergic state.

We are grateful to Professor L. J. Witts, Nuffield Professor of Clinical Medicine, Oxford, for permission to publish these cases.

REFERENCES

- Davis, E. (1948). *Blood*, 3, 129.
 Gendel, B. R. (1948). *Ibid.*, 3, 1283.
 Kuzell, W. C., Schaffarzick, R. W., Naugler, W. E., Gaudin, G., and Mankle, E. A. (1953). Address to the American Rheumatism Association, New York.
 Osler, W. (1914). *British Medical Journal*, 1, 517.
 Witts, L. J. (1942). *Ibid.*, 2, 309.

POST-PUERPERAL RECURRENT DEPRESSION

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The purpose of this paper is to draw the attention of practitioners to a form of illness which is not uncommon and which is important, not only because of the distress and incapacity which it inflicts upon the patient, but also because of the repercussions which it produces within the family group.

There are few references in the literature to the sequelae of puerperal depression. Hemphill (1952) mentions "a periodic affective illness . . . after childbirth, with subsequent attacks related to menstruation." There is little doubt that he had in mind patients such as those I am about to describe. Linford Rees (1953) has observed that "in some patients with children it was found that premenstrual tension had developed or had become worse after childbirth." These, however, are merely the passing remarks of writers who were dealing with a different theme.

Summaries of seven cases are here presented of women with a history of puerperal depressive illness some years previously, following which full health has never been regained and recurrent sharp phases of depression, tension, and irritability have occurred, with short interludes of comparative well-being. The resemblances which these patients bear to one another in their history and symptomatology appear to class them as a distinct group, to which it is proposed to attach the name "post-puerperal recurrent depression."

These patients tend to take a moral rather than a medical standpoint towards the alteration in their feelings and behaviour. While they are not rare as visitors to psychiatric clinics (5 in the last 300 new patients seen), it is probable that many of them do not seek medical advice, or, if they do, are not sent for psychiatric examination.

Typical History.—A woman of pyknic build and cyclothymic temperament suffers from a relatively mild puerperal depressive illness in her thirties or late twenties. Emotional stress or an infective illness may have coincided with the puerperium. She appears to make a good recovery from her depression, but within a short time becomes unwell again. Thenceforward, for years, she suffers from recurrent phases of depression, irritability, and tension, with phobias, obsessive fears, or hypochondriasis. The severity of her symptoms is related to the menstrual cycle, usually the premenstrual phase. Irregularity of the menses is a concomitant feature. Her moodiness, unpredictability, and loss of temper are reacted to by the children and the husband, the family atmosphere becomes clouded and unstable, and the family ceases to function as a unified group.

Case 1

Observation period, All Saints' Clinic, seven years; personal observation, two years. Large-framed woman of pyknic build, aged 38. Facial pallor. Expression morose. Para-3.

Her present illness began in 1943; after birth of her second child lacked confidence to go out and about. Within a few days of birth of third child in October, 1945, became depressed and agitated. Had a mild febrile illness attributed to throat infection at this time. Three attacks of

quinsy in subsequent eight weeks. Remained acutely disturbed for three months. Something in her head seemed to say, "Put the baby on the fire." Impulses to strangle the child or to throw her out of the window or to jump out of the window herself. "Not real voices, but thoughts in her mind."

Admitted to Midland Nerve Hospital in tenth month of puerperium. In hospital nine weeks. Treated by sedation. Acute symptoms subsided. Attended as out-patient at Midland Nerve Hospital subsequently for two months, but developed pneumonia. Stopped going.

Referred to All Saints' Clinic in August, 1946. Still plagued by impulses to strangle child. Received E.C.T., six shocks, October, 1946. No lasting improvement. Termination of pregnancy and sterilization, 1948. Attended until August, 1950, receiving analytical psychotherapy. Appreciated the opportunity to express her fears but did not lose strangling ideas, and continued to have depressed moods.

Returned to all Saints' Clinic April 18, 1952. Complained of intermittent feelings of hopelessness; lack of inclination to do things; marked irritability; depression, lasting for a few days at a time, accompanied by impulses to strangle children or throw them out of the window, to commit suicide, to smash crockery, to smack people in the face, etc. Symptoms most marked nine or ten days after start of menstrual period. Severity fluctuates at other times, and she has freedom from symptoms for two to three days at a time.

Response to Treatment.—Acetylcholine shock, 1953; no appreciable effect. Dextro-amphetamine, 10 mg., and amylobarbitone, 1 gr. (65 mg.) b.d., and supportive therapy. Moderate symptomatic benefit. Decrease in irritability and depression, and in intensity and frequency of obsessional impulses, together with some all-round improvement in the family atmosphere. Withdrawal of medication leads to immediate worsening of symptoms. Weight remains fairly constant at 10 st. 1 lb. (64 kg.).

Comment.—Severe case. Good spells infrequent and last only a day or two. Anxieties and febrile illnesses during puerperium. Symptoms related to menstrual cycle. Patient's illness had led to serious repercussions within the family.

Case 2

Personal observation, one year. Stoutish woman of pyknic build, aged 39, para-1; florid complexion; anxious expression.

Present Illness.—Seven years ago, when eight months pregnant, she developed right-sided Bell's palsy. Much worry about this. Prolonged labour—forceps delivery. Urinary infection with high fever for first week of puerperium. For next three to six months had to fight against feelings of depression and lack of energy. Got a bad fright when baby was 8 weeks old, when she found a cat lying on his face in pram. Feared he was smothered. Depression gradually diminished, but she has never felt quite well. Feelings of weakness; "no life" in her legs; avoids company; giddiness and fears of falling; lacks confidence to do things; sensitive about residual facial weakness; irritability and intolerance of noise. Symptoms vary in severity from day to day. Much worse before and during menstrual period. Gradual improvement in past one to two years, but still much handicapped before start of treatment.

Environmental Factors.—Strict mother, but no family strife. Husband's untidiness annoys her, but on the whole the relationship is good.

Previous Health and Personality.—Very active, energetic, and sociable. Very particular and fastidious regarding house and personal appearance. No previous breakdown. No severe physical illnesses. Mild chronic bronchitis.

Response to Treatment.—Excellent symptomatic response to dextro-amphetamine, 5 mg. b.d., amylobarbitone, 1 gr. (65 mg.) b.d. Feels well. Has taken a part-time job.

Actively seeks company. Symptoms return if tablets are withdrawn temporarily.

Comment.—Moderately severe case. Good spells last only a day or two. Anxiety over facial palsy and acute infection during puerperium. Symptoms related to menstrual cycle. Tendency to spontaneous improvement in recent years. Dramatic response to dextro-amphetamine.

Case 3

Observation period, All Saints' Clinic, 10 years; personal observation, two years+. Large florid-complexioned woman of pyknic build; para-1, aged 47.

Present Illness.—Began 11 years ago when her baby was about 7 weeks old. Depressed for six months; then improved but has never been quite well since. Feelings of depression accompanied by "dislike" of her husband and child; general irritability; fears of becoming insane, committing suicide, or attacking others; fatigability; discomfort, sometimes amounting to pain, in left side of head and face. Symptoms begin abruptly, last for one to three weeks and disappear rapidly. They tend to begin premenstrually and to lift soon after period ends. In past 12 months increased tendency to flushing and weeping (? menopausal).

Environmental Factors.—Much difficulty with interfering mother-in-law, who lived with patient and family. This relative's removal following a cerebral thrombosis had no appreciable effect on patient's symptoms.

Family History.—Nothing relevant.

Previous Health.—Hard-working, capable, sociable woman. Always inclined to be over-emotional and to take things too much to heart. Depressive breakdown of two to three months' duration following father's desertion of mother. No other history of psychiatric symptoms.

Physical Health.—M.P.s regular 4/28 until past six months, during which there have been floodings and amenorrhoea of up to three months. No serious illnesses. **Present physical status:** Moderate obesity; B.P. 120/85; no signs of disease found.

Response to Treatment.—No appreciable response to hexoestrol. Moderate symptomatic response to dextro-amphetamine. Time incidence of symptoms as before, but severity much decreased.

Comment.—Moderately severe case. Good spells of up to six weeks' duration. Symptoms related to menstrual cycle. Lability rather marked; probably related to menopause. Aggravating factors in environment, but modification of these has not led to change in patient's state.

Case 4

Personal observation, eight months. Large woman of pyknic build, aged 43; para-2 (children 7½, 3½).

Present Illness.—Marked irritability, with temper loss and fears of harming children. Feelings of acute despondence: "life not worth living." Tendency to avoid people. Much worse for seven days premenstrually. Good spells in which symptoms are practically absent for two to three days. Blames "selfishness" on her own part and failure to accept move to a city which she dislikes. Did not realize that she was unwell or that there was any possibility of medical treatment. Husband responsible for her seeing psychiatrist in first instance.

Onset.—Became depressed within two weeks of birth of first child seven and a half years ago. Improved after three to four months, but has never been quite herself since. Symptoms as above in comparatively mild form. Considerably worse since birth of second child.

Environmental Factors.—None other than ordinary family responsibilities. Husband extremely forbearing and considerate. Excellent home conditions.

Previous Health.—Excellent. Highly capable, sociable woman of more than ordinary intellect. Good-humoured and philosophical. No neurotic traits of any kind before

onset of present illness. *Physical Health*.—M.P.s regular, 3-4/28; no illnesses. *Present physical status*: excellent.

Response to Treatment.—Complete alleviation of symptoms on dextro-amphetamine, 10 mg. in morning, 5 mg. at noon. Retrospectively realizes the degree of her disorder. Husband (specialist physician) describes effect of dextro-amphetamine as "most dramatic" and compares it with the effect of insulin in diabetics. Continuous medication is not now necessary. Since initial week's treatment, attacks of depression have been less frequent and have yielded to renewed medication. Very great improvement in family relationships since patient has been receiving treatment, particularly in behaviour of youngest child, who previously was tending to become capricious and unruly.

Comment.—Moderately severe case. Good spells last only a few days. Environment very good. A further childbirth after symptoms had begun in mild form had a pronounced aggravating effect. Symptoms related to menstrual cycle. Patient's state tended to disorganize family and create new difficulties. Dramatic response to dextro-amphetamine. Improvement maintained after drug was withdrawn.

Case 5

Observation period, All Saints' Clinic, four years; personal observation, one year. Aged 26; para-2. Average build; good colour; mildly anxious expression.

Present Illness.—Became depressed while in hospital after birth of second child four years ago. Had fears that the nurse would drop him. Became agitated on return home, wept frequently, could not sleep. Eventually told husband that she had fears of murdering the children, or would commit suicide to prevent herself harming them. Also fears that a man would break into the house and kill her. Depression decreased gradually and obsessive fears waned in severity in subsequent three months. Since then she has had frequent attacks of depression and irritability with return of obsessive fears of variable intensity. Periods of freedom from symptoms for up to three months. Menses irregular, 6/20-30. During ill phases feels worse before and during M.P. and a little better after menstruation.

Environmental Factors.—Difficulties with husband's family at time of onset but not recently. Husband loyal to her. Elder child very active and mischievous at time of onset. Patient has turned to religion for comfort, with some success recently.

Previous Health and Personality.—Happy person, easy-going; good mixer. Menses regular until last childbirth. No serious physical illnesses. Mild depression, lasting for three to four months after birth of first child. Recovered spontaneously and completely. *Present physical status*: Healthy; B.P., 128/80.

Response to Treatment.—E.C.T. June, 1953 (six shocks). No appreciable effect. Dextro-amphetamine, 5-10 mg. b.d. Regular medication since July, 1953. Good symptomatic response. Took a part-time job in November, 1953, on own initiative, but had to stop after six weeks because it interfered too much with household management. Symptoms occur as before, but are very much milder and do not constitute a serious handicap.

Comment.—Relatively mild case. Periods of freedom up to three months. Symptoms related to menstrual cycle. Domestic worry during puerperium. Age of onset (22) younger than the majority in present series.

Case 6

Observation period, three months. Aged 37; para-1. Pyknic build; moderate obesity; fresh complexion.

Present Illness.—Began nine years ago, when baby was 7 weeks old. Husband was badly wounded in France at that time and patient had to make "an awful journey" to Portsmouth with baby on the breast. She became depressed and indecisive, and remained so for several months. Since then she has had recurrent episodes of depression and irritability lasting for two to four months, interspersed with

periods of one to two months, during which she feels comparatively well. During the spells finds everything too much trouble. Housework gets her down. She has a lump in the throat, poor appetite, and broken sleep. She sweats a lot; her legs feel like jelly, and she has palpitation and beatings in her head and ears. Annoyed with herself for being as she is. Periods irregular in duration and amount. Husband thinks that before and just after periods she is worse.

Environmental Factors.—Husband irritable and changeable since the war, but has improved a great deal in the past two years. Patient's symptoms are apparently unaffected, however.

Previous Health and Personality.—Always rather sensitive and easily hurt, but fond of sport as a girl and liked parties and dances. Fastidious; likes to do things well; inclined to be house-proud. Symptomless mitral valvular lesion, of which she is aware. *Present physical status*: moderate obesity; rough systolic murmur in mitral area; well compensated circulation.

Response to Treatment.—Symptom-free since receiving dextro-amphetamine, 5 mg. b.d., and amylobarbitone, 1 gr. (65 mg.), over past two months, but may be in spontaneous remission.

Comment.—Relatively mild case. Good spells of one to two months' duration. Severe emotional stress during puerperium. Symptoms related to menstrual cycle.

Case 7

Personal observation, three months. Aged 42; para-7. Pyknic build; moderate obesity; looks rather older than her years.

Present Illness.—Two miscarriages at three months when aged 31. Periods scanty since then. No further pregnancies. "Like this ever since." Feels depressed and cries readily; but had bright spells of a few days at a time. Irritable, restless, wants to keep changing all the time. Headaches off and on—"a pressing-down and thumping on top of the head." Gets excited easily and has palpitation at such times. Occasional attacks of diarrhoea, flatulence, and indigestion. Sleeps fairly well, but feels tired in the morning. Face puffy below the eyes in the morning. In recent years: thinness about the chest, fatter about abdomen and hips.

Environmental Factors.—Heavy family responsibilities and financial hardship.

Family History.—One brother has had a depressive attack.

Previous Health and Personality.—Nervous as a child. Intelligent at school. Active, sociable, hard-working as an adult. Depressive illness of moderate severity, starting in fourth puerperium at age 23. Treated in hospital. Spontaneous recovery in six months. *Present Physical Status*: Moderate obesity; no signs of disease found; B.P., 140/88; menses brief and scanty (1/28).

Response to Treatment.—Dextro-amphetamine, 5 mg. b.d., amylobarbitone, 1 gr. (65 mg.) b.d. Marked and immediate improvement. "Before, I had no interest in anything. I can keep on at anything now. I don't seem to get that irritable feeling or that depression so much. I wish I'd had these tablets before. I've had this trouble for years."

Comment.—Moderately severe case. Good spells of a few days' duration. History of depression (? puerperal) preceding onset of present illness by eight years. Present illness followed miscarriages, but course and clinical picture essentially similar to puerperal cases. Symptoms not clearly related to menstrual cycle, but menses scanty since onset.

Points in Clinical Findings

A digest of the above clinical data brings out some interesting points.

The average age of onset in these seven patients is 30. If one excludes the youngest patient (22 at onset) the average age for the others is 32.

There is a history of stress during the puerperium in six patients; emotional stress in all of these, plus an infective

illness in two. In one patient there was a history of a previous non-puerperal depressive attack. In two patients symptoms had begun in mild form during one puerperium and a further childbirth had had an aggravating effect. In one case the starting-point had been an abortion at three months.

Patients with milder symptoms enjoyed well-being for periods up to three months. Those with more severe symptoms had only occasional "good days."

There was a relation of symptoms to the menstrual cycle in six patients; in five of these there was worsening during the premenstrual phase, in one worsening at ovulation time.

Irregularity of menstruation or oligomenorrhoea of the same duration as the psychiatric symptoms occurred in five patients.

There was clinical evidence of disturbed water balance in two patients.

In the majority the pre-morbid personality showed some cyclothymic traits, but on the whole these women were well-integrated people who had reached a good all-round level before they fell ill.

Discussion

Diagnosis.—The history of puerperal depression as the starting-point of the illness could be established without leading questions in all these patients, but, largely on account of their preoccupation with current problems, some persistence was necessary to get them to give a satisfactory account of the onset. This history is the main pointer to the diagnosis, since the symptoms themselves are not of a specific kind.

Differential Diagnosis.—The majority of these patients had been regarded by their family doctors as psycho-neurotic, one or two as "ordinary" depressives. The personality, history, and symptomatology are, however, quite different from what is characteristic of the neurotic: "ordinary" recurrent depressives usually enjoy much longer symptom-free periods than do these post-puerperal patients. Depression in psychopaths and epileptics may have some resemblance in frequency and brief duration of attacks to what is found in the post-puerperal group, but the history of fits or of lifelong personality disorder suffices to distinguish them.

Aetiology.—In the absence of knowledge of the nature of the depressive state and of the neuro-endocrine effects of the puerperal involutinal processes one cannot go far towards a physiological understanding of this disorder, or, for that matter, of those puerperal depressions which run a self-limiting course. The condition may, on clinical grounds, be regarded as a variant of manic-depressive disorder combined with features of the premenstrual tension syndrome. Pre-menstrual tension and its relation to disturbed water metabolism has been adequately discussed by Stieglitz and Kimble (1949), Bickers and Woods (1951), and Linford Rees (1953). Hemphill (1953) has referred to "the acute alteration in the physiological state associated with childbirth operating on a susceptible personality" . . . appearing "to activate . . . puerperal depression." Rees's (1953) remark about the precipitation of premenstrual tension by the puerperium has already been quoted. On the basis of the material under consideration it would appear that two alternative interpretations might be made: either that a relatively irreversible reinforcement of the manic-depressive diathesis may occur, or that some other alteration in the constitution—for example, tendency to premenstrual water intoxication—may supervene which increases susceptibility to depressive attacks.

Course and Prognosis.—No women of post-menopausal age have been seen suffering from this illness, and the possibility exists that the menopause may lead to an improvement in these patients. Two patients had shown slow spontaneous improvement over the years but were still far from recovery. In the others there had been little or no change, even when the environment had improved.

Response to Treatment.—Dextro-amphetamine produces a dramatic symptomatic relief in some patients and a useful improvement in others. Acetylcholine shock therapy had no effect on the one patient on whom it was tried. Electric convulsion therapy produced no lasting benefit on two patients who received it. Its known effect in alleviating a depressive attack without touching the diathesis may explain its failure here. Hormone therapy and measures to control water-retention have not been adequately explored.

Summary

A syndrome is described in which recurrent depression, irritability, and tension dating from an attack of mild but typical puerperal depression are the leading features.

The symptoms tend to be worse in the premenstrual phase.

A pyknic body build appears to be typical.

The condition follows a chronic course, and treatment is problematical.

Serious disturbance of the life of the family is a secondary effect of the illness.

The condition appears to be related to the premenstrual tension syndrome.

It is a common and important condition and is at present insufficiently recognized.

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REFERENCES

- Bickers, W., and Woods, M. (1951). *New Engl. J. Med.*, **245**, 453.
Hemphill, R. E. (1952). *British Medical Journal*, **2**, 1233.
Rees, L. (1953). *J. ment. Sci.*, **99**, 67.
Stieglitz, E. J., and Kimble, S. T. (1949). *Amer. J. med. Sci.*, **218**, 616

ALPHA-PROTHROMBOPLASTIN DEFICIENCIES (HAEMOPHILIA) OF DIFFERING DEGREES IN A MOTHER AND SON

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There are a number of reports in which female bleeders are described as haemophiliacs. However, it has been realized that, despite clinical similarity, the "haemophilic" syndrome can be caused either by a deficiency of any one of several essential clotting factors, or it can be due to the presence of an inhibitor of blood-clotting. Although haemophilia has been connected by most workers with a derangement of the blood thromboplastin complex, in the last few years it has been found that it consists of several components. Clinical manifestations are therefore insufficient to establish the diagnosis of haemophilia. As the various components of the clotting system have been separated from plasma,