mornings and had no desire to do anything except what was essential. She had a dread that something would happen to her baby. (Other mothers in a similar situation had admitted that they were afraid of what they might do to their babies, but in this, the first case, I did not elicit this point in the history.)

I said nothing about the baby to the mother but offered her a prescription for an anti-depressive drug for herself. Three days later, the baby was much better and the mother certainly looked a lot less worried. We discussed her feelings and I advised her to remain on the drug. She made a fairly uneventful recovery.

Since I saw that patient five years ago I have recognized this syndrome in over 40 other mothers. All of these were in my own general practice. However unrepresentative my practice may be it is obvious that the national incidence of this syndrome must be fairly high.

In these other cases I have seen the story has always followed a similar pattern. Where the baby was born in hospital the onset of vomiting began shortly after discharge, though in some cases the mothers have said that their baby was not well in the hospital. In several cases there has been a history of depressive illness before the birth of the baby. Not all the babies were first-born; nor, where the babies were second or subsequent offspring, was there always a history of a similar illness after the previous birth(s). Furthermore, in some, but not all, of the mothers who have had second babies following this syndrome after the birth of their first, there has been no repetition of this 'vomiting baby' presentation of a puerperal depression.

Some mothers, either because they cease treatment too soon or for other reasons, have relapsed and had a recurrence of their depression within weeks of the first episode after the birth of their baby. Where this has happened the mothers have usually come back to me saying 'my baby is vomiting again.' Further treatment of the mother has led to a remission of the baby's troubles.

It is always essential when this condition is suspected to examine the baby carefully. For a depressed mother is as likely as any other to have a baby with a gastro-intestinal disease which makes him vomit. In one case where the mother appeared to be depressed she felt a lot better when I next saw her but the baby had lost weight. I could feel no tumour but there was elicited a family history of pyloric stenosis in a paternal uncle and this was found in the baby at subsequent operation.

My own experience of this syndrome in a general practice has been so relatively common that I feel sure others must have come across many comparable cases. Of course the general practitioner is in the most favourable position to manage such a case, for only he could be consulted about a baby and write a prescription for the mother. The reference of the mother to a second specialist might well hamper the pædiatrician in his management. Discussions with many pædiatricians have shown that they have seen cases where they suspected a puerperal depression in the mother but, being unable to do anything about it themselves, they felt obliged to concentrate on the baby. However, it would appear that there is no need to do anything at all for the baby except to treat the mother.

This is not a syndrome which can be confirmed by special investigations. Nor is it one in which an observer can easily be introduced. The essence of successful treatment in my experience is the ability to offer the mother the correct treatment at the first consultation. I suspect that once this opportunity is lost she will no longer be willing to take medicine for her baby; even if she is, her mother or mother-in-law might express adverse criticism. But if no time is lost in starting treatment, then by the time the relatives arrive on the scene the mother (and her 'vomiting baby') are well on the road to recovery.

No one else but the general practitioner – the family doctor – is in a position to treat the mother and child simultaneously; indeed, in these cases, he is treating the mother while apparently looking after her baby.

Dr Katharina Dalton (*London*)

The Influence of Mother's Menstruation on her Child

A London evening newspaper of October 1964 told of a young mother who had beaten up her 3-year-old daughter. In evidence the mother stated: 'I suffer from my nerves, at certain times of the month it is worse than others.' The husband said: 'She seems to be quite uncontrollable. I have restrained my wife physically.' This young woman was not one of my patients, but it reminded me of a similar instance in which one of my kind and motherly patients, in a fit of temper, had struck her child, fracturing her fibula. In her case these violent outbursts always occurred just before menstruation, and treatment for her premenstrual tension resulted in a happy and even-tempered mother.

Serious cases of premenstrual tension result in temporary loss of self-control and may result in acts of violence. What happens in the less serious cases? Does the child show any adverse manifestations to his mother's premenstrual irritability, depression and lethargy? The possibility that minor coughs and colds in children might be related to mother's menstruation was suggested by the following case:

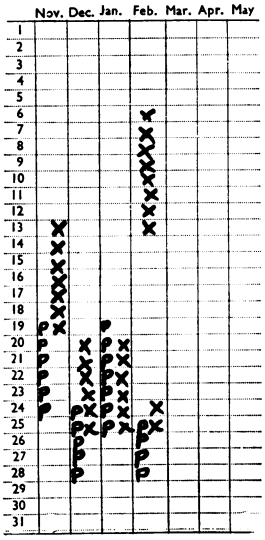

Fig 1 **Case 1** *Chart showing relationship between the dates of the child's colds* (X) *and his mother's menstruation* (P), *1964-5*

Case 1 Boy, aged 3

This child was brought in November 1964 by his elder brother with the ultimatum 'something must be done'. He had been suffering from a 'cold' since an attack of mumps in January 1964. During tea that day he had again sniffed loudly, when in his brother's words: 'Mother really lost her temper and made me bring him here.' He was healthy enough and unconcerned by the thick nasal catarrh coming from his nose. This was his first visit since mumps. Next day, his father confirmed that he had had an undue share of recurrent colds, which had not been continuous, but each time one had cleared up there was a recurrence within a couple of weeks. The father agreed to bring the child regularly each week until the present cold cleared, to report immediately the development of a new cold and to record the onset and duration of all colds.

The boy's mother, aged 35, was healthy, with normal menstruation, but admitted to being tired and irritable during the premenstruum. When the dates of the boy's colds were entered on the same chart as his mother's menstruation, it became evident that his colds were occurring during the mother's premenstruum (Fig 1).

Following this positive correlation of the child's colds with his mother's menstruation it was decided to investigate this possibility further with mothers whose children were frequent attenders at the surgery. The mothers were asked to record on a periodicity chart the dates of their child's ailments. Most of the mothers were already keeping records of their own menstruation on the menstrual charts which are given routinely to patients in this practice. It was fascinating to observe the marked correlation in many cases of mother's menstruation to the child's minor, but recurrent, symptoms.

Table 1

Distribution of children's attendances during mothers' paramenstruum

	Attendances during paramenstruum	*Total attendances in group*	χ^2 *on 1 d.f.*	*Probability*
All children	49 (54%)	91	28·4	0·001
Children aged under 2 years	15 (71%)	21	18·9	0·001
Only children	16 (67%)	24	16·8	0·001
Symptoms less than twenty-four hours	21 (66%)	32	21·8	0·001
Mothers aged under 30 years	12 (63%)	19	11·3	0·01

Survey of Minor Ailments

When it became apparent that the mother's menstruation could influence the child's health adversely, it was decided to investigate all children attending for treatment of minor coughs and colds. The survey was limited to children, who fulfilled the following five conditions: (1) Appeared well at the time of attendance. (2) No physical signs were elicited at examination, apart from nasal catarrh or cervical glands. (3) They were apyrexial at time of the visit. (4) They attended surgery and were accompanied by their mother. (5) They were not in the prodromal stage of an infectious disease. Those occasions where the surgery attendance was primarily for some other member of the family and where, as an afterthought, at the end of the primary consultation the mother sought advice about her child's cough and cold, were excluded from the survey. In such cases it was not the timing of the child's ailment which had determined the time of the surgery attendance.

The period covered by the survey was March 1965 to October 1965, thus excluding the winter months when infectious coughs and colds, in all members of the family and at all ages, are common. The survey was carried out in a single-handed general practice and all the children were seen by one observer. A proforma was prepared on which was noted the child's age, sex, position in family, duration of symptoms and the presence of nasal catarrh, cough, sore throat or vomiting. The mother was asked her age, parity, date of her last menstruation and whether she suffered from depression, irritability, tiredness, 'bloatedness' or breast pains at the time of her menstruation.

Definitions

Paramenstruum is used in this study for the four days immediately before menstruation and the first four days of menstruation. In a normal cycle of twenty-eight days this would include Days 1–4 and Days 25–28.

Intermenstruum is used in this study for all days of of the menstrual cycle except the four premenstrual days and the first four days of menstruation. In a cycle of twenty-eight days the intermenstruum would cover Days 5–24, and would be two and a half times the duration of the paramenstruum, but the inter-

menstruum can vary in length in short and long menstrual cycles. In the calculations of probability in this study the length of the intermenstruum is taken as twenty days.

Results

During the eight months of the survey, 91 episodes of apyrexial coughs and colds were recorded among the children of 65 mothers. Forty-nine of these attendances (54%) occurred during the paramenstruum, and this percentage is much higher than the expected 28·5% in four groups, as shown in Table 1. The significance of this preponderance in these four groups is shown by the χ^2 test on one degree of freedom and for each of these four groups the probabilities are very low. These results are therefore highly significant. Mothers attending during their paramenstruum claimed a slightly higher incidence of each of the premenstrual symptoms of depression, irritability, lethargy, bloatedness and mastitis.

In view of the significant findings of the effect of the mother's paramenstruum on the surgery attendance of her child, a survey has now been commenced to study the time of acute hospital admissions of children in relation to the time of their mother's menstrual cycle.

Discussion

This study reveals that over half of all children attending surgery with minor coughs and colds attend during the eight days of the mother's paramenstruum. The children studied appeared normal at the time of examination, were unconcerned by their symptoms, responded to simple mixtures and did not require any further attention. Several of these children were brought within three hours of the onset of symptoms; sometimes a child had merely coughed (or possibly choked) during breakfast and the child attended the 9 o'clock surgery.

During the paramenstruum the mother is unable to assess the severity of her child's symptoms and fears these may be the early stages of a serious illness. Lowered judgment during the paramenstruum was blamed by Dalton (1960*b*) for the high proportion of accidents during the paramenstruum, and she also showed that schoolgirls' work deterioriated at this time (1960*a*). Wickham (1958) demonstrated that intelligence test scores in women Army personnel were lowered during menstruation. These same factors of impaired judgment and mental dullness of the paramenstruum appear to be operating in the mother's assessment of her child's symptoms.

It is commonly recognized that the young mother with an only child is invariably overanxious about her child's illnesses and her inability to differentiate between insignificant and real symptoms sends her hurrying to the surgery or the telephone at the first sniff or cough. In this study all these factors are borne out with the additional finding that during the mother's paramenstruum they were increased.

Dalton (1964) has shown that premenstrual tension increases with age and parity, which would appear to be contrary to the findings of this study. A possible explanation may be that with greater experience the older mother with a large family has the effects of her premenstrual tension buffered by other members of the household.

There have been many surveys to show the adverse effects of the paramenstruum on various facets of a woman's life and, as has been pointed out, the menstrual influence of these surveys varies within a narrow margin (Dalton 1964). Thus, during the eight days of the paramenstruum 45% of schoolgirls' punishments were inflicted, 45% of industrial employees reported sick, there were 46% of acute psychiatric admissions and 49% of acute medical and surgical admissions, 49% of prisoners committed their crimes, 52% of emergency accident admissions were noted and 52% of acute pyrexias presented for diagnosis in general practice. This study would appear to be the first correlation of the effect of a woman's paramenstruum on other people's lives, in this case the children, and it is of interest that the menstrual influence of 54% corresponds closely to the narrow limits of 45–52% in the surveys quoted. It has often been suggested that a woman's paramenstruum must have a significant effect on other people, as in marital quarrels where the husband suffers from his wife's irritability, in schools where the children suffer from a teacher's paramenstruum, in industry where factory workers are at the mercy of a forewoman in her paramenstruum, and even wrongdoers at the hands of a woman magistrate.

This study emphasizes the close and sympathetic relationship which develops between the young mother and her child. When the mother's well-being is affected during the paramenstruum, the child responds by a similar feeling of ill health, as manifested by nasal catarrh, cough or sore throat. Many general practitioners will recall occasions when they have treated the mother, even though it was the child for whom the advice was sought. The findings of this paper stress the importance of recognizing the effect of mother's paramenstruum as one of the many possible causes of recurrent minor ills in children and justifies treatment of the mother in these cases.

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