The pleural cavity was opened, a little clear fluid escaped, and the parietal pleura was sutured to the diaphragmatic pleura. The diaphragm was incised, a collection of pus beneath it evacuated, and a drainage tube was inserted. The pus grew streptococci on culture.

On December 21st a further collection of pus under the medial part of the right diaphragm was drained after resection of a portion of the sixth right rib anteriorly. The general condition improved after this, but the drainage sinuses did not heal, and there were occasional bouts of pyrexia followed by increased discharge from the lower sinus. On April 4th, 1935, a fluctuant swelling appeared in the right loin. This was incised, and a large abscess cavity connected with the lower drainage sinus was opened and drained. A drainage tube was fixed in position with a silkworm-gut suture. Three days later a carbuncular process appeared around the suture holes of the drainage tube. The inflammation gradually spread in the skin, destroying the skin in its progress, so that a fortnight later there was a raw granulating area two inches in diameter, with the drainage sinus in its centre. The ulcerating edge of skin all round this area showed a thin

edge of gangrene, and beyond this a thin bright red tender area, which advanced almost imperceptibly each day.

On April 20th, under gas and oxygen, the inflamed gangrenous edge was excised with a diathermy knife, and in case this procedure might not prove to be sufficient to eradicate the infective process in the skin, a deep gutter was made through the whole thickness of the skin with the diathermy knife, a quarter of an inch further out, all round the ulcer, and in obviously healthy skin. After this the wound rapidly became healthy. Healing soon began to take place, the granulating area epithelialized satisfactorily, and the patient left the hospital on July 2nd.

A photograph taken six weeks after the excision of the skin (see Figure) shows a healthy granulating wound (the dark area); around this is the newly formed skin, and beyond this can be seen the healed gutter in the skin.

REFERENCES

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- ² Nightingale, H. J., and Bowden, E. C.: *Brit. Journ. Surg.*, 1934, xxii, 392.
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PERSISTENT HEADACHE DURING LACTATION

WITH REPORT OF FIVE CASES AND COMMENTARY

BY

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The cases reported below describe a persistent headache associated with the nursing period, which characteristically disappears on weaning. Of varying severity, it is usually frontal, being described as "behind the eyes"; but it may affect the whole head, with spasms referred particularly to the occipital region, commencing typically at or after the first week of puerperium. None of the cases were primiparae: second or third pregnancy was commonly the rule. No pathological basis was traceable for this symptom. Pregnancy and parturition were normal; the urine was normal before and after confinement, except in Case II, where there was a trace of albumin during the later months, which happened to be hot summer ones, and probably discount it. There was no rise in blood pressure during the puerperium; the fundi were normal. There was no uncorrected visual defect. Except in Case IV, there was no anaemia. The bowels were regular. In Case III there was gross dental caries, and this was thought to be a possible cause of the symptom. But the headache disappeared on weaning, and the dental condition is still waiting attention. In Case IV there was a considerable anaemia before term, and the same patient had alopecia areata affecting almost the whole scalp.

In these days of active ante-natal therapy most will agree that much can be done before confinement, both for the mother and for the baby, by suitable diet, supplemented if necessary by an artificial supply of vitamins A and D, in the form of radiostoleum or adexolin, and iron; and even calcium by mouth, whatever may be its fate in digestion, appears to have some value. Four of these patients were women in poor circumstances, in whom adequate ante-natal therapy was not a possibility; that is to say, drugs such as radiostoleum would have been a serious item in their weekly budget, and advice to persevere with an extra supply of milk and iron-containing foodstuffs in their diet was only likely to be carried out spasmodically. Further, a ten days' puerperium was about all they could manage.

While naturally without statistics it does not constitute any proof, it is at least suggestive that inquiry has not elicited, nor in my own experience have I seen, a case of

such headache occurring where careful ante-natal supervision has been possible. Such headaches are uncommon. My series covers a period of six years, and by including all the cases I have attended or had access to the percentage is 1.3, while probably the true figure is well under 1 per cent.

In treatment of this symptom it seemed advisable to use drugs with circumspection with the baby at the breast; but in all a considerable number were tried, with at best temporary effect. Phenacetin and caffeine afforded temporary relief in two cases, and radiostoleum, or rather lack of it, appeared to have some effect in one case. Probably rest, a suitable diet, and drugs directed at improving the patient's general condition would have effected some improvement. Circumstances, however, made weaning the alternative in the only case in which I have been able to apply the test since forming a conclusion.

It is easy to be wise after the event, and, seen in retrospect, the solution must appear obvious. But actually at close quarters it was not until the fourth case of the series that the probable cause suggested itself. There is little reference to such a condition in the literature, yet fellow practitioners with whom I have compared notes can most of them recollect one or more cases in their experience which probably come into this category, though, like myself, they had attached little importance to them after they had cleared up.

Case I

Mrs. A., aged 43, fifth pregnancy. Delivered July 22nd, 1929. Very poor home conditions in London. Normal pregnancy and easy delivery, with short second stage. The puerperium was uneventful, and it was with difficulty she was persuaded to stay in bed twelve days, as she badly needed a rest. But on the tenth day she sat up out of bed, and when seen on the twelfth day complained of a severe headache "behind her eyes," which had started on the tenth day. Her temperature and pulse were normal, and she gave in no way the impression of being toxæmic. She was well in herself, but slept badly, as the headache usually kept her awake until about midnight. No physical cause was found for the symptoms. The bowels were normal, also the urine; there was no rise in blood pressure. The fundi were normal. She wore spectacles, but her refraction was tested and found to be correct. The teeth were false, and there was nothing clinically to suggest a sinusitis. She was given a phenacetin-caffeine mixture, which afforded some temporary relief and helped her to get off to sleep. But the headache returned consistently about midday, and persisted until she fell asleep at night.

Meanwhile she was feeding the baby at the breast. But she led an active life, doing all her own housework, and she had not been up long before complementary feeds were necessary, and during the sixth week after delivery the supply of breast milk gave out altogether. I was still seeing her occasionally, and on my visit shortly afterwards she reported that the headache had disappeared entirely within a few days of ceasing breast-feeding.

Case II

Of Mrs. B., aged about 26, I have no notes, as I delivered and attended her in August, 1932, during my tenancy of a locum appointment, but make no apology for including her case, as I remember the details clearly, and have the practitioner's consent to the "loan." The patient was a labourer's wife, in her second pregnancy, which I was assured had been normal, except for a trace of albumin in the urine during the very hot last two months before term. Delivery and the puerperium were straightforward, and she got up on the tenth day. A week later she sent for me, complaining of a severe frontal headache, which came on daily after midday since she had got up. As in Case I, investigations as to cause proved negative, and she was offered similar treatment. Phenacetin and caffeine gave her little if any relief, nor did gelsemium, which I tried later in a mixture with bromide, and the headache was unchanged when I saw the last of her about a month after delivery. Though she said it was severe it did not interfere with her sleeping, and she was very well during the earlier part of the day till the headache made its appearance.

I have since had the opportunity of checking the progress of the case by letters both from the patient herself and from the practitioner, and heard that the headache persisted unaltered by drugs, of which a number were tried, chiefly with bromide as a basis, during the whole eight months she continued to feed the baby at the breast. Weaning was gradual, and the patient said she thought there was some improvement in the headache as it neared completion, and it cleared up completely within a week of discontinuing the breast entirely.

Case III

Mrs. C., aged 27, third pregnancy. Delivered November 21st, 1933. She was a labourer's wife in poor circumstances, and of very poor intelligence. She had detailed instructions as to diet after she booked attendance; but it is doubtful if she made more than a pretence of carrying them out, even if she could afford it. However, confinement and puerperium were normal enough, and she was up when I visited her on the twelfth day. She then complained of a very severe frontal headache, which she said had started on the sixth day. As before, nothing definite was forthcoming in the way of a cause, though I had noticed a progressive dental caries in some already neglected teeth during pregnancy, and on examination found this was still more advanced. Phenacetin and caffeine were tried, and gave her very little relief, and paraldehyde, which I tried later, appeared to upset the baby. Accordingly, as the headache still persisted, at the end of a fortnight I offered to extract the worst of the teeth. However, she stoutly denied she had ever had toothache, and was unwilling to submit to extraction; and a year later proudly demonstrated to me that she was still in possession of the offending mouthful. Meanwhile I could do little for her headache, which was evidently severe, and she grew more and more emaciated. However, in the third month her supply of milk for the baby failed, and very quickly the headache improved. Her general condition also started to improve, and within three weeks she was free from symptoms.

Case IV

Mrs. D., aged 30, second pregnancy. Delivered November 28th, 1934. She was a cottager's wife, who had let herself get into a very low condition when she consulted me on September 10th for lassitude and alopecia areata. The latter, already extensive, spread till at term almost the whole scalp was involved. She had some oedema of the ankles, and was markedly anaemic. There was a low-pitched systolic

murmur at the apex, and her blood pressure was 100/65. There was nothing abnormal in the urine. A blood examination showed: red cells, 2,800,000; haemoglobin, 33 per cent.; colour index, 0.59. It was not till later she developed a bleeding pile, which in any case was responsible for only a very slight haemorrhage, and the cause of her anaemia remained obscure. She was put on pil. Blaud, 45 grains daily, radiostoleum, and the calcium gluconate preparation recommended by Theobald,¹ intramuscularly. In addition, she was ordered an extra pint of milk beyond her ordinary consumption, and a supply of green vegetables as plentiful as the season would allow.

In these measures she co-operated well, and had made a great improvement by term. She had a normal and very easy confinement, the baby being, in fact, born before my arrival; the puerperium was uneventful till on the ninth day she complained of severe headache "behind the eyes," and affecting later the whole head. She had been running a temperature of 99° to 99.4° F., which I thought was connected with the mild local sapraemia so often associated with a sutured perineum, which was necessary in this case. Apart from this, which now rapidly cleared up, I could find no cause, and her anaemia now was negligible. Iron had been discontinued with the establishment of lactation, but she was still on radiostoleum, and was given phenacetin and caffeine. The headache improved for a time, but recurred when for a few days she was without radiostoleum because she let her supply run short, and was subsequently present daily in the later part of the day, often keeping her awake at night. In view of her pre-natal condition I kept her in bed three weeks, and had arranged that she should wean the baby at a month. This she did, and the headaches cleared up almost directly. She has continued well, and the hair is growing.

Case V

Mrs. E., aged 30, third pregnancy. Delivered April 28th, 1935. This patient, a farmer's wife, well in a position to afford and practise ante-natal therapy, booked attendance for her confinement a month before the expected date, so that she left little time to benefit by such measures. She had a normal delivery and an uneventful puerperium, and remained in bed fourteen days. Six days later she complained of severe headache, generalized in distribution in the morning, but towards evening tending to be localized in the occipital region, which had commenced three days previously. Investigations for a cause again proved unfruitful. I prescribed calcium aspirin (stabilized); but had no hesitation in this case in recommending that she should wean the baby, which was strong and healthy, at the end of the first month if the drugs proved ineffective. This programme was carried out, and the symptoms cleared up immediately.

Summary and Conclusions

Admittedly five is a small number of cases upon which to base any conclusions, but, as I have said, the condition is uncommon, and, so far as they go, they appear to justify the points summarized below, and which I think will be borne out in the light of further experience.

A very persistent headache may be associated with lactation, for which no underlying cause is discoverable, and which characteristically disappears on weaning. The condition is uncommon: it is less likely to, and possibly does not, occur in primiparae; and it would appear to occur chiefly among those of poorer circumstances and/or poorer physical condition, in whom nursing is an added burden.

Dental caries is more likely part of the same condition than a causative factor.

Treatment is prophylactic—that is, ante-natal therapy with suitable diet, vitamins, iron, and calcium; or where this has been neglected or through circumstances impracticable, similar treatment applied with a view to improving the general condition during the puerperium; or finally, weaning if the symptoms justify it.

¹ Theobald, G. W.: *British Medical Journal*, 1933, ii, 379.