A PSYCHIATRIC STUDY OF SIX CASES OF INFANTILE ACRODYNIA

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In a review of infantile acrodynia, one of us (Leys, 1950) commented on the similarity between acrodynia and the clinical picture described by Spitz and Wolf (1946) in children deprived of their mothers. Without insisting on an absolute parallel, he suggested that there were grounds for investigating the emotional state of cases suffering from acrodynia. While to the perceptive and experienced eye the clinical picture presented by emotionally disturbed infants shows many variations, these must be subjectively interpreted and are open to dispute. It is a truism of paediatric or child psychiatric practice, however, that the emotional state of the mother profoundly influences the emotional state of the child. This was described thirty years ago by Hector Cameron (1919) and has been the subject of many studies and observations. Thus Levy (1943) states: "It is generally accepted that the most potent of all influences on social behaviour is derived from the primary social experience with the mother. . . . His outlook on life, his attitude towards people, his entire psychic well-being, his very destiny is presumed to be altered by the maternal attitude." For the purpose of this report it is unnecessary to enter into discussions on how maternal attitudes influence the emotional state of the child. It is, however, well within the observation of child psychiatry that a child may experience the result of emotional stresses that the mother herself fails to recognize.

In view of these considerations it was arranged that, in each case of acrodynia met with, the family background of the child's life should be investigated, as is done with psychiatric problems. This in practice resolved itself into the psychiatrist interviewing the mother, or both parents, while the paediatrician treated the child. In two of the cases the parents themselves referred other children of the family who suffered from psychiatric disability, so that our knowledge of the family situation was much increased.

Treatment and prognosis are not discussed here; the symptoms and signs of acrodynia cleared up in every case.

Case 1

A girl, admitted at 15 months, had been a model baby. At 8 months she had suffered from constipation and a prolapsed rectum. For two months before admission she had had "teething rashes," treated apparently by exclusion of cream, butter, cod-liver oil, and vitamin preparations from her diet. When seen at 15 months the child was described as listless, off her food, sleeping badly, whimpering, and wanting to be lifted. She sweated a lot, and her hands in the past two weeks had become pink. On examination she was pale, had obviously lost weight, resented being touched, and tended to kneel with her face buried in the pillow (photophobia). She was otherwise apathetic, with hypotonic limbs. Tachycardia (175) and raised B.P. (174/120) were present. Her hands and feet were red and cold. The liver was enlarged below the costal margin. There was some sweat rash over the rest of the body.

The mother, a pleasant young woman, had been a clerk before marriage and sang in the church choir. Her mother was a worrier and was strict in her religion; her father was healthy and easygoing. The patient's father, aged 23, also a clerk, was quiet but with a temper. His mother was much concerned with what people think; his father was easygoing. The parents were engaged when the child was conceived, and both grandmothers were greatly exercised over the scandal in two respectable families. The marriage was hastened on, and the couple were found rooms in the house of the paternal great-grandmother. Here they found conditions impossible; they were limited in coal, and were not allowed to make any noise at night or before 10 in the morning. The mother was forbidden to do washing in the rooms, as it would make the walls damp. She said that caring for the child in these conditions got her nerves "in a state." She felt upset and fed up; nothing was right, and she was inclined to snap at everyone. She attended the doctor for her nerves. It was in this situation that the child's symptoms developed.

When interviewed the mother seemed a pleasant, competent young woman; the circumstances of her marriage were still a preoccupation, and after "confessing" them she spoke of her concern that the child would one day find out.

Comment.—In this case the child was conceived against the wish of the parents and precipitated the marriage. Its presence was associated with much self-reproach to the mother. In addition it had created great material difficulties for her, and she had reacted to these stresses with nervous symptoms at the time of the illness.

Case 2

This child was admitted to hospital at 22 months. Birth had been normal; she was breast-fed for two weeks and was put on the bottle when her mother got up. Physical development had been normal up to the onset of the illness, but the child had rocked her cot and when ill she had banged her head. She still picked her woollens and ate them at the time of admission. The normal physical progress had been interrupted two months before admission. The child was fretful and cried when cutting teeth, and did not improve when the teeth came through. She stopped talking, was whining and fretful, slept badly, had loss of appetite, and sweated; her hands were red, hot, and moist, and her feet cold; she tended to constipation and showed doubtful photophobia. Her mother described her as "limp." At the time of admission there had been some improvement, but the child was whining and miserable, was unwilling to sit up, had acrocyanosis of hands and feet, showed tachycardia (140+), and had raised B.P. (145/95). Tuberculosis, of which there was a history on the paternal side, was excluded. The diagnosis of acrodynia was made.

A family background of stress was revealed. The mother, aged 36, grew up in an unhappy home with shortage of money. The maternal grandfather suffered from bronchitis. The maternal grandmother went out to work. The mother as a girl had resented having to work in the house. When she was 17 the maternal grandmother was killed in an air raid and she thereafter kept house for the maternal grandfather and a maternal uncle. She found herself ignorant domestically and was filled with self-reproach at her previous attitude to her mother. She married at 20. The father, a bus conductor, at the time of the child's admission aged 36, was a heavy, anxious, down-in-the-mouth individual, a non-smoker and non-drinker.

The eldest child, aged 6, showed some personality disturbance referable to parental anxiety and mishandling. He was timid, withdrawn, a "bundle of nerves," would not go out, had attacks of vomiting, became agitated on separation from the parents. He was brought for treatment. The second child, aged 3, had been in hospital suffering from strangulated hernia. The patient, the third child,

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had been unwanted, and represented a failure in birth control. The mother described herself as tired and "so depressed I can hardly breathe" since she knew she was going to have this child. She had sickness all through this pregnancy, though not with the other children. Since this child had gone into hospital she had suffered from headaches. In view of the failure of contraception, with the consent of the father, and supposedly on the advice of the family doctor, sexual intercourse between the parents had ceased with the birth of this child. The home was good from the point of view of space and activity.

The mother was a pleasant drawn-looking woman, tired, and attending the family doctor for "nerves," but formally good with the children, manifesting no lack of affection.

Comment.—The factors of stress appear to be in the mother's history, in the determination and failure to limit the children to two, and in the disturbed marital situation. The severely disturbed eldest child and the patient's rocking, head-banging, and picking suggest lack of maternal warmth and over-restriction. The patient was confessedly an unwanted child, and the mother had shown psychosomatic symptoms from the time of conception.

Case 3

This patient was admitted to hospital aged 9 months. The history was of a normal pregnancy and birth. She was breast-fed for four to five months and weaned from the breast without difficulty. Previously healthy, the child about two months before admission lost interest, cried a good deal, became limp, slept badly, lost appetite, and lost 2 lb. (0.9 kg.) in weight. A month before admission her hands and feet had become swollen and cold. A week earlier a rash had developed on the body and the child had a blister on one toe. On examination she was irritable and tearful, with a flushed facies. Hands and feet were red, cold, and sweating, there was a papular rash on the trunk, and some of the skin creases were broken. Moderate tachycardia was present (160), and the blood pressure was 140/100. Hypotonia was marked, and the child was found to be running a slight evening temperature. Infantile acrodynia was diagnosed.

The mother, aged 21, a shorthand-typist, had married at 19. The maternal grandmother was highly strung, and the grandfather had been disabled in the first world war. The father, aged 30, was an electrician of healthy parentage. The marriage had been happy, but circumstances were difficult. They had two rooms, but the children arrived too quickly; the eldest was 2 months old when the patient was conceived, despite attempted birth control. "I did not want her." The landlord, wife, and two children also lived in the house. "They don't want children crying all night." They kept bees outside her window, which frightened her, and she continually dashed out to take the child in when they were disturbed. The dog frightened her and the children. The mother had felt overwrought since the birth of the patient, who had cried at nights; the mother had been both irritable and self-reproachful. She had difficulties with the landlady, and was unable to keep the place straight or work a shared kitchen. Sexual relations had been unsatisfying to her. She was inclined to blame the husband for this, but her own fear of conception had probably been the main factor. In the month before the child's illness began the mother said she had become hysterical and had attacks of screaming and weeping, for which she attended her doctor. Seen with the child, she held her with kindness and care.

Comment.—This child was also conceived contrary to the parents' wish. The material difficulties for the mother were great and were aggravated by the child's birth. The child's illness had developed when the mother was attending her doctor for acute nervous symptoms.

Case 4

This child, a girl aged 14 months, had been born at home and had been breast-fed for five months. Her maximum weight was 24 lb. (10.9 kg.) at 12 months. At the time of examination it was 19 lb. 10 oz. (8.8 kg.). She was said to be "feverish" when cutting each tooth. Four weeks before examination she had begun to cut her canines. She had been off her food, had vomited, was restless at night as with her other teeth, but now showed complete refusal of food, and became very passive, although restless and making chewing movements. She refused to be bathed or dressed. On examination she lay quiet in her parent's arms and resented interference. There was gross subcutaneous wasting, mainly over the abdomen, but also in the limbs, which were hypotonic. There was no hypersensitivity or photophobia at the time, but later some evidence of hyperaesthesia. Her heart rate was 160. The systolic pressure (narrow band) was >140. She could stand and walk. Infantile acrodynia was diagnosed.

The family situation and the mother's health were much disturbed. She had been restricted by her own mother, who had disliked her, and she was attached to her father. At 20 she had had a breakdown with attacks of screaming while in the W.A.A.F., after she had picked up a dead baby in an air raid. The father, a student, came of excitable parents. An elder child was born in 1943. The patient had been born when the husband went back to student life after the war. They occupied a small flat and had an "awful" landlady. The husband was studying, and the children had to be kept quiet in the evening, while the baby shared their room. During this time the older child attended a child guidance clinic for pilfering and restlessness, and the mother attended a psychiatrist for anxiety symptoms, phobias, and hysterical manifestations. They had just moved out of this situation when the child's illness began. Subsequently both the elder child and the mother received treatment again.

Comment.—The mother's bitterness against the grandmother was increasingly revealed as creating difficulties for her in a maternal role. This was regarded as the essential element in her problems with her children, though the factor of restriction and crowding did come in. While the mother accused herself of irritability with the children, particularly the eldest, she handled the patient with apparent affection.

Case 5

A girl just over 12 months old was admitted to hospital with a history of a normal maternal first pregnancy and healthy delivery. She had always been a light sleeper. She was breast-fed for only three weeks and then put on the bottle, making a steady gain up till about two months before admission.

At this time she began to refuse feeds and was disinclined to sleep. She would lie and whimper, although yawning all the time. She would play if taken into the parents' bed and eventually slept. When transferred to the care of the maternal grandmother for a few days she tended to improve. At 9 months she could stand and crawl, but had made no progress since and lay passive. She now liked to be cuddled, although initially had shown little response to it. In two months she had lost 2 lb. (0.9 kg.) in weight. She sweated a lot in sleep.

On admission she resented being handled, and her appetite and sleep were poor. There was hypotonia, with some acrocyanosis of hands and feet. The heart rate was 120–130, and B.P. 110/60. Her temperature was normal, as were her gums and mouth. *X*-ray films of the chest were negative, the Mantoux test was negative, and the blood picture and white cell count were normal. She was considered to be a mild or doubtful case of acrodynia.

The background of stress in the child's life was acute. The mother, aged 28, had a stable family background. The

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father, aged 35, was a cheerful individual. The paternal grandmother was, however, a dominating woman, and her husband had to conform. The child's parents had been married for two years. They lived in two rooms in the house of the paternal grandparents. Friction had quickly developed between the mother and her mother-in-law, and was aggravated after the birth of the patient. The two women had ceased to speak to each other. One of the rankling accusations made by the grandmother was that the mother did not love her child. Relations between the parents were also strained because the mother had refused sexual intercourse since the birth of the child, as she refused to take the risk of another pregnancy in these circumstances. Both refused to undertake birth control. She felt also that it was the duty of the father to provide her with an adequate home, and her determination had a punitive element in it.

The mother felt that her initial easy disposition had gone and that she was becoming spiteful, irritable, and cross with the child. It was in this situation that the symptoms complained of developed.

The mother was, on interview, a pleasant woman and did not show formal mishandling of the child.

Comment.—The factors present appear to be acute maternal stress related to the housing position, her mother-in-law, and her marital relations. This was so marked as to cause her to report a change in her personality. The grandmother's accusations that she did not love her child may be important.

Case 6

A boy aged 13 months was admitted to hospital. Pregnancy and labour were reported to have been normal except that the mother had oedema in the latter months. He was breast-fed, and was not weaned until 11 months. At 9 months he had had mild whooping-cough. At this time he had weighed 16½ lb. (7.5 kg.); his weight of 18 lb. (8.2 kg.) on admission almost certainly represented a loss of weight. About a month before admission he had begun to refuse feeds, became cross and restless, showed dislike of the light, and developed a fine rash on the body. On examination this was found to be a characteristic but not very severe case of acrodynia, with photophobia, tachycardia, swelling of the hands, hypotonia, moodiness, difficulties with feeding, and a tendency to sweat. On admission he was noted to be rather dirty and uncared for.

The mother, aged 41, a stout, apparently genial, slightly slatternly-looking woman, said she was "always tired"; she also said she was sometimes depressed, but made light of this. She herself had been adopted after the death of her father, and spoke of the maternal grandmother with detachment and of the adoptive parents with affection. The father, aged 41, suffered from duodenal ulcer, and was irritable and moody. There was nothing significant in the paternal grandparents.

The patient was the seventh child, and five older ones were still at home. The father had to work overtime to keep going financially, and gave the mother £5, in addition to which she had an allowance of 25s. weekly. The home was a house with six rooms and a kitchenette and bathroom. The mother indicated that she used to take a pride in keeping the house nice, but no longer did so, and confirmed that she had not wanted the child, and, indeed, half-hearted birth control had been practised since the third child; she did, however, say that it was all right when they were there.

Comment.—Here the factors of the child's being initially unwanted and some degree of stress were both present. The mother herself suffered from continual tiredness and was occasionally depressed. It may be said that the findings in this case were compatible with rather than strikingly illustrative of the elements found in the other cases in the series.

Observations

The evidence of stress in the family situation of these cases is striking, and indeed more obvious than that in the family of many children attending the psychiatric clinic.

In Cases 1, 2, 3, and 4 the mothers were actually attending the family doctor or a psychiatrist for nervous symptoms when the child developed the symptoms. In Cases 5 and 6 the mothers respectively complained of irritability and spitefulness and of tiredness and depression.

In a consecutive series of 30 cases of manifest psychiatric symptomatology referred by the paediatrician to the psychiatrist in the same clinic, maternal symptomatology of this kind was present in only eight cases (Prince, 1951).

In Cases 1, 2, 3, and 6 the children were the result of failure of contraceptive methods and their conception was unwanted. It may be important that in Case 5 the paternal grandmother accused the mother of not loving the child. In Case 4 the mother, who subsequently received psychotherapy, revealed severe emotional difficulties in relation to her children. All these mothers, with the possible exception of Case 6, were, however, formally good mothers who showed care for the welfare of their children. Nevertheless, it is a familiar experience in child psychiatry to meet mothers who, though overtly affectionate, cannot show complete maternal warmth to their infants. The other element present with surprising consistency was the need to restrict the child's crying or activity. This was demonstrably present in Cases 1, 3, 4, and 5, while in Case 2 the child's rocking, head-banging, and picking are signs usually associated in the mind of the psychiatrist with lack of maternal warmth and over-restriction.

In these cases, therefore, we would say that the essential element present was some degree of emotional deprivation associated with the child's being unwanted, and with other maternal stresses and some evidence of over-restriction. This occurred in families reasonably well disposed towards the children. No effort has been made to present more than the manifest situation, and psychodynamics are not discussed.

The series is small, so that an element of coincidence cannot be excluded, but it does contain all cases of acrodynia which attended a paediatric clinic at the time, and there was no selection of cases on any basis other than the symptoms of acrodynia.

In our view the evidence is sufficient to warrant extended observations of the emotional and family background of infants suffering from acrodynia.

Summary

Six cases of infantile acrodynia are described in their family setting and environment. In each case evidence is offered that the child suffered from emotional deprivation, and that the mother was herself suffering from psychiatric ill-health at the time of onset of the child's illness. The circumstances were conducive to restriction of the child.

REFERENCES

Cameron, H. C. (1919). *The Nervous Child*, 1st ed. Oxford Univ. Press, London.
Levy, D. M. (1943). *Maternal Overprotection*, p. 3. Columbia Univ. Press, New York.
Leys, D. (1950). *Arch. Dis. Childh.*, **25**, 302.
Prince, G. S. (1951). Paper to Paediatric Section of R.S.M. on June 23, 1951 (unpublished).
Spitz, R. A., and Wolf, K. M. (1946). *Psychoanalytic Study of the Child*, **2**, 313. London.

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