Medical History

'A case of fever, attended with inordinate appetite'

A report delivered and recorded in 1815

This paper draws attention to a report read at the Royal College of Physicians of London in April 1815, and published later the same year in Medical Transactions (Fig 1). The author, Richard Patrick Satterley, was appointed physician to the Middlesex Hospital in 1806. He died in the summer of 1815.

In his introduction, Satterley noted:

...'...The deprivation of the powers of digestion... is among the earliest signs of the existence of pyrexial diseases... [and] proceeds uninterruptedly through their course.... Any deviation from this association is confessedly rare'.

The patient was a youth of 16 'Who, on his return from school, was observed to be pale and unwell'. He felt cold and complained of a frontal headache. He passed a restless night. During the following three days, his symptoms appeared to be abating; then the headache worsened, he became flushed, restless and agitated, and his pulse rate was raised. Venesection was carried out; leeches and blisters were applied to his head. His condition 'threatened a long continuance of fever' and his appetite was poor.

About the seventh day, however, the patient was noted to have developed a voracious appetite: 'Exclusively of several basons of sago and slops, he daily ate some pounds of biscuits'. The introduction of meat to his diet was followed by incessant cravings for it. According to Satterley, at this period of the disease, the boy would eat a pound-and-a-half of beef steaks, a large fowl, or a couple of rabbits, at one meal without apparently satisfying his appetite; a few minutes after he had devoured, with indescribable greed, meat adequate to support the stoutest labourer, he would deny having tasted food and earnestly entreat for a further supply. Independently of three or four regular meals a day, he was continually eating dry bread, biscuits, or fruits, many pounds of which he daily devoured. The most incongruous substances were greedily swallowed and, when all else failed, he would endeavour to obtain a supply from the bedclothes or his fingers. The latter he often, apparently from hunger, bit so as to make them bleed. The craving for food came on regularly with the paroxysm of fever, and continued unabated until that subsided, when he usually fell into a sound sleep. The period of the recurrence of the paroxysm was very uncertain, but it was always marked by a distinct circumscribed redness of one or both cheeks; the moment this spot became visible, the boy would rouse himself (for he was at other times either sleeping, or dull and torpid) and immediately his craving for food recurred as the fever advanced (and it ordinarily ran very high). This craving increased until, after perhaps 10 or 12 hours, both fever and appetite subsided. With the aid of purgatives 'he would produce six or seven copious but solid evacuations, any one of them equal to the daily excretion of a man in health.... The disease was extended, with various alternations, for upwards of 30 days, when the fever subsided and he gradually recovered'.

Satterley considered that the boy had suffered from an attack of typhus fever, accompanied by some very unusual symptoms. There is no record of the boy's subsequent medical history. Satterley died a few months after he had read his account of the case to College Members.

Levin [1] and MacDonald Critchley [2] reported similar cases of periodic hypersonomnia and megaphagia (Kleine-Levin syndrome). Levin suggested that 'periodic somnolence-hunger' is due to excessive 'inhibitability' or exhaustibility of the highest centres (in the frontal lobes). The untimely and prolonged inhibition of these centres will explain the manifestations of the syndrome. In addition, he noted that the onset may occur soon after an acute febrile illness. MacDonald Critchley considered that 'The syndrome ... would seem to occupy a sort of nosological borderland, and may well represent yet another instance where clinical features which are partly "mental" are provoked by minor organic processes, mediated along physiological mechanisms, and reversible in type'. He emphasised four hallmarks of the condition:

Fig 1. From the Medical Transactions, April 1815, pp350-7.

XXII. A Case of Fever, attended with inordinate Appetite. By Richard Patrick Satterley, M.D. Fellow of the Royal College of Physicians, and Physician to the Middlesex and Foundling Hospitals.

Read at the COLLEGE, 17th April, 1815.

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1. males preponderantly, if not wholly, affected;
2. onset in adolescence;
3. spontaneous eventual disappearance of the syndrome;
4. megaphagia possibly in the nature of compulsive eating, rather than bulimia.

More recently, Walton [3] wrote that, generally, no physical abnormality, clinical or biochemical, can be discovered during the attack. He referred to a report of one fatal case by Carpenter et al [4] where the post-mortem findings in a man aged 39 suggested a viral cause. There was massive microglial infiltration with minimal neuronal loss in the thalamus. There were no significant changes in the hypothalamus.

In summary, Satterley’s clearly described ‘paroxysms’ of sleep, torpor, and muttering delirium, alternating with an arousal (signalled by the development of a circumscribed flush on the cheeks) and immediately followed by fever, a craving for and a devouring of very large quantities of food, have many features in common with those cases described and reviewed by Levin and MacDonald Critchley. Satterley’s report pre-dated by many decades the earlier accounts referred to by these two authors.

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References

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2. Critchley M. Periodic hypersomnia and megaphagia in adolescent males. Brain 1962;85:627-56.
3. Walton JN. In Brain’s diseases of the nervous system (9th edn). Oxford: Oxford University Press, 1985, p.643.
4. Carpenter S, Yassa R, Ochs R. A pathologic basis for Kleine-Levin syndrome. Arch Neurol 1982;39:25-8.

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