The clinical features of late onset anorexia nervosa

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Summary: This study examines clinical features of late onset anorexia nervosa. This involved the scrutiny of a large database of patients with anorexia nervosa comprising data gathered at standardized initial assessments over the period 1960–1990. Patients with a late onset were compared to other selected patient samples.

The population comprised 12 patients with a first onset of anorexia nervosa at or after the age of 30, 415 patients with an onset after 15 but before 20 and 9 patients with an onset after 15 but before 20 and matched for age at presentation with the late onset group.

Features studied included age at menarche, age at onset of anorexia nervosa, age at presentation, duration of illness, weight at presentation, lowest adult weight, highest weight, weight at onset of illness, marital status and parity.

Patients with an onset of anorexia nervosa after the age 30 comprised 2% of the total female patient sample. Though such patients were rare, their clinical features were very similar to those of typical patients with adolescent onset. Notably, young and late onset patients had similar durations of illness prior to presentation, and similar proportions had bulimia and defensive vomiting. Feared sexuality, no longer necessary for childbearing, emerged as being of apparent aetiological significance in the late onset group, with the disorder embodying its rejection, as often also seems to be the case with earlier onset. The late onset cases were hard to diagnose and had a poor outcome.

The study underlines the importance of considering the diagnosis of anorexia nervosa in older patients, even if there is no earlier history of anorexia nervosa. Such patients are likely to find it easier to conceal the psychological origins of their problem behind the possibility of a primary physical illness, or behind psychiatric diagnoses such as depression, the treatment of which may not threaten their avoidance of normal body weight.

Introduction

Occasional case reports have revealed that anorexia nervosa (AN) and bulimia nervosa can arise in an older patient group, including the elderly.^{1–3} Most practitioners have seen older patients with disorders persisting into, or recurring during, later life and such patients are relatively easily understood in the context of prevalent theories of aetiology. However, less common and harder to understand are patients with AN arising for the first time later in life.^{4–6}

It is difficult to be certain if some of the reported cases were presenting with the first onset or rather an exacerbation of a chronic disorder – even though this has been enquired about in detail. The patient reported by Launer⁵ illustrates the problems. She was said to have had no previous episodes of anorexia, but despite not having episodes of

amenorrhea, she had had a long-standing eating problem.

A large series of patients presenting to our specialist clinic over a period of 30 years offered the chance to look at the characteristics of patients with late onset AN, and to compare this group to other anorectic groups.

Method

This study used a database of cases attending a specialist clinic offering a service to patients with AN. Patients had been assessed in a 3-hour long, standardized, clinical interview involving patient, parents and, where appropriate, spouse or other close relatives. Subsequently, information from this assessment was entered on a proforma recording 300 clinical variables.

From this database a sample meeting DSM-IIIR⁷ criteria for AN was derived, and from this sample further sub-samples were drawn (see Table

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I). For the main part of the study only female patients were described. Even amongst female patients, only 9 patients could be found with a young onset who could be closely matched with the late onset sub-sample for age at presentation.

The notes of the late onset patients were reviewed for factors that might explain the timing of onset, and whilst the patients were not systematically followed-up, where available, outcome data were recorded.

Results

A stratification by age of all patients meeting criteria for AN by sex was made. Of 557 female patients; 415 (75%) had an onset before the age of 20 years, 523 (94%) an onset before the age of 25, 545 (98%) an onset before the age of 30 and 12 (2%) an onset at 30 years old or more. Of 42 male patients; 30 (77%) had an onset before the age of 20 years, 39 (93%) an onset before the age of 25, 40 (95%) an onset before the age of 30 and 2 (5%) an onset at 30 years old or more.

The late onset group are described in detail in Tables II and III. In brief; their mean age at onset was 40.3 years, their mean age at presentation was 46.1 years, and their mean duration of illness was 5.8 years. Their mean weight at presentation was 37.7 kg, and their mean lowest adult weight was 35.3 kg. Forty-one per cent were bulimic, 50% used vomiting as a weight control mechanism, 66% used laxatives and 83% engaged in unusually high levels of activity. Eighty-three per cent were married and 66% had children.

This group is contrasted with the other two patient groups for age variables, weight variables and symptom variables (Table II). The groups do not significantly differ for mean age at menarche. The late and young onset groups (not matched for age at presentation) do not significantly differ for duration of illness prior to presentation.

There are no significant differences in the mean weights between the three groups on the presented variables. Data were also collected on the patients' chosen 'ideal' weight, but were not available on all patients and are therefore not portrayed. There is some suggestion, however, that the late onset group had relatively high mean chosen weights – 49.7 kg, compared to 47.0 kg for the young onset group and 42.8 kg for the young onset/late presentation group.

For symptom variables, with so few cases in some groups, the data are hard to interpret. What is more noticeable is that the late and young onset groups seem relatively similar to each other. Also of note is that older age at presentation, as in the late onset group and the young onset/late presentation group did not increase the frequency of

Table I Study patient groups (females only) – all met DSM-III-R criteria for anorexia nervosa at presentation

Late onset	<i>n</i> = 12
– onset at or after age 30	
Young onset	<i>n</i> = 415
– onset after 15, but before 20	
Young onset/late presentation	<i>n</i> = 9
– onset after 15, but before 20	
– matched with late onset group for age at presentation to clinic	

bulimia being described when compared to those patients presenting at younger ages. The only significant differences were for high activity. Young onset/late presentation patients less frequently described high activity levels at presentation than the late onset group (Chi-square with Yate's correction; $\chi^2 = 8.05$, $P < 0.005$) and the whole young onset group (Chi-square with Yate's correction; $\chi^2 = 15.2$, $P < 0.0001$).

Data regarding possible precipitants of the illness of these patients came in two forms. Firstly, there were some hard data (Table III). The onset bore no immediate relationship to marriage. Similarly, it is hard to see a theme in the temporal relationship of onset to the age of the children.

Secondly, there were more soft data. Many of the patients had life-long problems with sexual relationships, with an emphasis upon sexual relations sustained for the purposes of procreation but otherwise with intense distaste. Perhaps within this context, at least two patients were known to have been sexually abused as children. Three patients developed anorexia in immediate relation to moving house: one patient when her parents moved house away from her, another under threat of rejection from her brother's marital home, the third faced with a move away from her mother. In one patient the importance of the event was underlined by recurrent dreams preceding anorexia, about a move of family house in her childhood.

The patients were apparently hard to diagnose. Two presented for the first time in renal failure, one was only uncovered following failure to thrive after a possibly inappropriate gastrectomy, another came after long-standing attendance at an allergy clinic.

Although outcome data are not presented for the comparison groups the outcome of the late onset patients seemed poor. Nine patients were admitted to hospital. Five discharged themselves early, and one of these is known to have been severely anorectic 20 years later. Only four completed their advised period of stay. One is known to have died two years later, a second was anorectic two years later, a third was anorectic 3 years later, the fourth

Table II Clinical variables for patient samples. For age and weight data the mean is followed by the standard deviation. Because data were not available on all variables, numbers are quoted in all cells

	Late onset (n = 12)	Young onset (n = 415)	Young onset/late presentation (n = 9)
Age at menarche (months)	156 (± 18) (n = 12)	159 (± 17) (n = 384)	174 (± 13) (n = 9)
Age at onset (months)	484 (± 99) (n = 12)	217 (± 44) (n = 415)	204 (± 25) (n = 9)
Age at presentation (months)	553 (± 125) (n = 12)	272 (± 79) (n = 415)	504 (± 94) (n = 9)
Time between onset and presentation (months)	69 (± 58) (n = 12)	56 (± 68) (n = 415)	300 (± 112) (n = 9)
Weight at presentation (kg)	37.7 (± 5.6) (n = 12)	39.5 (± 5.2) (n = 414)	38.2 (± 6.2) (n = 9)
Lowest adult weight (kg)	35.2 (± 5.4) (n = 11)	36.7 (± 5.4) (n = 399)	33.5 (± 4.0) (n = 9)
Highest weight ever (kg)	57.8 (± 8.3) (n = 11)	57.0 (± 8.8) (n = 401)	60.0 (± 11.5) (n = 8)
Weight at onset (kg)	52.0 (± 3.9) (n = 10)	53.8 (± 7.9) (n = 353)	50.1 (± 9.7) (n = 6)
Percentage of patients with bulimia	41%	44%	33%
Percentage of patients using vomiting	50%	42%	67%
Percentage of patients using laxatives	66%	51%	78%
Percentage of patients using high activity	83%	77%	14%

Table III Relationship of onset of anorexia nervosa to marriage and children in 12 patients with late onset anorexia nervosa

Patient	Years – marriage to onset	Age of children at onset (years)
1	Single	None
2	11	9
3	14	11 10 8 5
4	9	4 1
5	22	20
6	17	None
7	3	27 21
8	19	15 13
9	14	43 40 23
10	16	11 9 7
11	Single	None
12	13	None

was doing well 2 years later. One patient had outpatient treatment and had an intermediate outcome at 2 years. Two patients did not engage beyond the initial assessment, and there are no follow-up data available. The patients with good or intermediate outcomes had onsets at 35 and 30 years of age respectively.

Discussion

The present study is unusual in using a large series of patients with AN with an assessment format which always involved relatives, even when the patient was middle aged or elderly. This process probably maximized the accuracy of identifying the age at onset. This was important in selecting late-onset patients and detecting earlier-onset

masked AN, either chronic or in the form of an earlier episode but, presenting at a later age. An age of onset at or after the age of 30 was chosen to define a late onset group because this was well after the more characteristic age at onset, and seemed likely to emphasize any differences from the more typical sample. Other studies have used an earlier lower age of onset at 25 years.

The incidence of anorexia in any group is hard to estimate, and there are no reliable estimates for late onset AN. However, Lucas *et al.*⁸ estimated that the incidence rate for females under 20 was 3.1 times greater than that for females aged 20 to 59. They also reported 14.1% of female cases as having an onset after the age of 30. Other studies have addressed the relative proportions of patients with AN who have a relatively late onset. Ryle⁹ has been reported¹⁰ as describing 13 of 51 cases with an onset after the age of 30. In fact Ryle quotes ages at presentation, and does not clarify any possible history of earlier weight loss. Kay & Leigh¹¹ report 30% of their patients, of a total of 38, as having an onset after age 25, Theander¹² 3% of a total of 94, Halmi¹³ 13% of a total of 94 and Garfinkel & Garner¹⁴ 5% of a total of 283. These figures compare with 6% for the present sample (female patients only), 2% having an onset aged 30 or later.

The studies reported above are not therefore directly comparable. The sample numbers are often small, the methods of collection very different, and some (including the present sample) are from centres offering tertiary referral services and therefore seeing selected patient groups. Older patients might be particularly likely to be misdiagnosed, and therefore not be represented in these series. Conversely, older patients may represent a particular treatment problem which would lead to a proportionally higher referral rate to specialist services. Despite these reservations, the large size of the present sample underlines the relatively infrequent onset of AN after the age of 30.

Comparing the young and late onset patients in the present series, they did not differ for age at menarche or duration of illness prior to presentation. The patients were remarkably similar for weight at presentation, lowest weight ever, highest weight ever and weight at onset of the illness. Similarly the groups were very similar in their methods of weight control. One exception to this was the suggestion that the adolescent onset but late presentation group was characterized by relatively low activity at presentation. This might be explained by chronicity of illness or else a more durable feature associated with successful avoidance of detection for many years. Despite the tautology in selecting the late onset patients as having AN and then claiming that they are similar to adolescent onset patients the data confirm the existence of late onset anorexia and its general

similarity to the more common form of the disorder.

Two concepts not used by DSM-III-R⁷ are particularly relevant to the patients under discussion. Firstly, King¹⁵ delineates two subtypes of AN – primary and secondary. These subtypes do not specifically relate to age at onset, but the patients he described with the ‘secondary’ syndrome were of notably late onset. These patients did not have a ‘primary aversion to food, but abstinence was endured for the sake of some greater gain, such as avoidance of pain, choking, poisoning, or the need to go on living’. Abstinence from food ‘was a secondary product of a phobic dread or a delusion, or was a manifestation of intense depression’. Although they displayed prominent depressive symptomatology, the patients in the present study with a late onset did not show this syndrome. They were not deluded and had the classical phobic avoidance stance in relation to normal adult body weight which characterizes ‘primary anorexia nervosa’. This postulated underlying mechanism leading to AN¹⁶ is notoriously difficult to detect and this may be especially so in late onset cases where its revelation may depend upon the patient being involved in treatment leading to weight gain. This can catastrophically expose the fear, as was the case with several patients reported here.

Secondly, Dally and Gomez¹⁷ discuss a concept of ‘anorexia tardive’ derived from Carrier.¹⁸ Clearly they refer to late onset cases, but are not more specific in a definition. They feel that ‘cases of anorexia tardive divide naturally into two groups’, and give descriptions of the two stereotypes with comment upon the different psychodynamics. Our patients probably fit into the ‘anorexia tardive’ categorization, but our findings do not offer clear support for the appropriateness of delineating this group of patients, except on the basis of prognosis (see below).

The relative incidence of bulimia amongst the anorectic groups is worthy of special comment. Previous studies have suggested that the mean ages at onset do not differ between restricting and bulimic sub-types,^{19,20} but that chronicity of anorexia may lead to an increased risk of the development of bulimia.^{14,16} The present study supports the idea of bulimia being no more common in older patients than younger patients who have similar durations of illness at presentation. However, the present subgroups of patients matched for age at presentation, but greatly differing for duration of illness did not differ for proportions reporting bulimia. This may be explained by the small number of patients with a young onset but late presentation. It might also be explained by the atypical nature of such a late presentation group.

Anorexia nervosa is usually thought of as an adolescent problem, and explained in relation to

the turbulent events of teenage years. For the late onset patients other maturational crises were examined to examine their relevance in the late development of the condition. The data did not support the idea of marriage or childbirth as an immediate precipitant of anorexia. However, although less easy to document, there was a clear general theme of sexual difficulties throughout life. It could be argued that a retreat from the challenges of sexual maturation, thought by us to be important in the aetiology of AN,¹⁶ was postponed for some of the present patients until dutifully they had seen through their fertile years, despite anxiety or disgust with their sexuality. At this point, however, sexual guilt and concern over ageing and self-regulation overwhelmingly reasserted themselves, to be resolved by the belated development of the disorder.

Other late onset case studies offer some support for this hypothesis. Kellett *et al.*⁴ described a single patient who had 'a disgust of physical sexual relations throughout her life'. The patient developed AN at the age of 52 following the marriage of her second daughter. Her husband having died, this left her alone for the first time in her life. Launer⁵ described a patient with a possible onset of anorexia at 70 years of age. This patient also had a 'dislike of the feminine role', and 'her sexual relationship with her husband had always been poor'. Despite this she had a son when she was 35 years old. Dally and Gomez¹⁷ described three patients with 'anorexia tardive'. Of these three, one refused her husband sexual intercourse after the birth of her only child, the second had two daughters but 'regarded sexual intercourse with

abhorrence'. Of a sub-group of such patients they suggested that within marriage sexual life 'was virtually non-existent' and 'symptoms are likely to increase after childbirth'.

The present study suggests a particularly poor prognosis for these late onset patients. This is in keeping with more general findings¹⁴ suggesting that later age of onset is associated with a worse prognosis. However, these findings largely distinguish the outcome for patients with an onset in their early teens from that for patients with an onset in their later teens and early twenties. Although the evidence is limited, we would suggest that the outcome of these still later onset patients is still worse. The proffered aetiological hypothesis for some of these patients might, in part, explain their apparently poor prognosis. For such patients the possible gains of recovery are less clear than for young patients who may desire the 'normality' of marriage and motherhood, but fear the reality of these undertakings.

The poor prognosis, and outcome of admission in particular, suggest that treatment approaches need to be modified for these patients. Possibly the ambitions of treatment need to be more limited, perhaps to include maintenance within anorexia at a stable weight which does not threaten life.²¹

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