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MALE ANOREXIA NERVOSA

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Abstract

Although anorexia nervosa (AN) more frequently affects young women, in conflict with their own body, obsessed with weight, wanting to lose weight at all costs and constantly looking for aesthetic models that are impossible to achieve, recently, it is also becoming common among young men. Therefore, AN is not a problem linked exclusively to the female gender, but also to the male one. More and more men are obsessed with weight and their physicality, they resort to drastic diets, rich only in proteins, and to excessive sporting activity. The symptoms are comparable to those of women, except for the aspects related to the menstrual cycle. In addition to marked weight loss, eating disorders in man can manifest themselves with problems related to muscle definition and obsession with achieving a certain body mass.

The risk that may be incurred is that of not being able to promptly recognize the warning signs, of making a wrong or late diagnosis, of implementing non-targeted treatments, which can favor the chronicity of symptoms. It is therefore important to recognize the symptoms early and contact a multidisciplinary team of professionals (doctor, psychotherapist, psychologist, nutritionist) as soon as possible in order to be able to intervene promptly and take care of the person globally.

In this article we will discuss the possible causes and what are the treatments to solve the problem. Also, We will briefly describe the symptomatic peculiarities (from the point of view psychiatric, food and internistic) of the male AN compared to the female one.

Key words: *Anorexia Nervosa, eating disorders, male gender, therapy*

Introduction

Eating Disorders (ED) are considered "female gender bound syndromes" because they mainly concern the female gender [1]. The reduced presence of ED and in particular of Anorexia Nervosa (AN), in the male gender has entailed considerable study difficulties since research was carried out in very samples restricted or in "mixed" samples, which have not always allowed an adequate investigation of the clinical pictures both from a diagnostic and therapeutic point of view [2]. It is singular that one of the first two cases of AN, described in 1689 by Richard Morton, an English physician that first related fasting and defedation to a psychic state, was really about a male, a 16-year-old boy son of a church minister.

Since then, however, the focus has been mainly on the female gender and when the AN is entered the psychiatric pathologies in the third edition of the "Statistical Manual and Diagnostic of Mental Diseases "(DSM-III) in the 80s the diagnostic criteria reflected the pictures symptoms present in women. The subsequent revision (DSM-III-R, 1987) and the fourth edition (DSM-IV, 1994 and DSM-IV-TR, 2000) have radicalized even more the focus on managers female clinicians introducing the criterion of amenorrhea (absence of at least three consecutive cycles) which has created considerable difficulty in finding a male correspondent.

Equivalent criteria such as testosterone drop and loss of sexual drive have been proposed, but the consequently the classification of many male AN cases into the large heterogeneous group of "Food Disorders Not Otherwise Specified" (DCANAS) [3].

Criticisms for the rigidity of the DSM-IV classification led to a profound revision of the diagnostic criteria [4,5].

In fact, in DSM-5, published in 2013, an attempt was made to introduce greater diagnostic elasticity and in particular, we focused on the review of the two somatic indicators of the AN, namely amenorrhea and the underweight.

The amenorrhea criterion was eliminated and the underweight criterion was viewed with a higher one flexibility leaving the clinician the final evaluation.

In this way, also clinical pictures in normal weight, but with serious anorexic characteristics, a lot frequent in males, were able to return to the diagnosis of AN.

The "Bigorexia or Reverse Anorexia" deserves a special mention.

The term "Reverse Anorexia" was coined by Pope in 1993 [6] and referred to a clinical picture present in males with aspects similar to AN, but with the symptomatological *core* characterized by fear to be too thin and slim even if with a robust and muscular body. In these subjects anamnesis, there is a frequent presence of episodes of AN (about 25%). This symptomatology is characterized by the use of highly unbalanced diets (of the high-protein type), frequent use of anabolic and compulsive physical hyperactivity. There is also intense discomfort in the emotional relationships, avoidance of social situations and refusal to undress in front of others. It is particularly present in *body builders* , in which the prevalence is around 10%.

In DSM-5 it is called "Muscle Dysmorphia" (Muscular Dysmorphism) and is classified among the "Body Dysmorphic Disorder", therefore in Obsessive Compulsive Disorders and not in ED, even if the approach therapeutic requires ED specific multidisciplinarity.

Methods

The lifetime prevalence of AN in males is estimated to be between 0.16 and 0.3% [7]. It is certainly difficult to get a picture of the real prevalence and incidence of AN in males. A recent study points out how there is an inconsistency between the data on the clinical

population, in which males represent about 5-10% of all
patients with AN and general population data in which males with AN are approximately 25% [8].
These inconsistencies are attributable to various factors including the use, in epidemiological investigations, of the same diagnostic tools (e.g. tests, questionnaires etc.) calibrated for female ED, which they do not keep account of the sometimes substantial differences in the two genders.
For example, the *Eating Disorder Examination* (EDE) while still showing its validity in the identification of ED especially in adolescents, it presents score alterations in males compared to females in particular in items that concern desire for thinness and worries corporeal because built specifically for females [9].
Furthermore, as underlined in a recent *review* on the epidemiology of ED in males (10), the DSM-IV diagnostics criteria relegated most male patients with AN to the Disorder group Non Specified Food (DCANAS) in which the *lifetime* prevalence of males was 3.38% a lot higher than females [11].
In a recent *review* [7] on male AN it was also underlined how the data on the relationship between AN in males and females were very variable from 1: 3 to 1:12.
In Italy, according to the data reported in the Health Notebooks of the Ministry of Health [12], the incidence
of the AN is estimated to be at least 8 new cases per 100,000 people in a year among women and 0.02 and 1.4 new cases per 100,000 people in a year among men.
The prevalence of ED seems to increase over time and in particular for the AN the increase in prevalence in the general male population it seems statistically significant [13].
Males with AN have a family aggregation *pattern* similar to females with AN, but according to some authors, to develop an eating disorder, males should have a stronger one genetic predisposition and particularly adverse environmental situations. Even in overweight and obesity males appear to be important and even more risk factors frequent in the anamnesis compared to females [1].

Results

The AN symptomatology in males is generally superimposable to the female one, but it can present some peculiarities, often due to the fact that only in more serious cases that make the treatment of male AN more complicated [14].
An important role in this heterogeneity of presentation covers the long period that generally between the onset of the AN and the start of treatment: it is believed that for the male AN an average of 1 year for restrictive forms and 4 years for purgative forms.
Regarding the age of onset in one of the first *reviews* on AN in male [15] not reported differences in the two genders, while some more recent studies place the age of onset for in males around 18.6 (one year more than females) linking it to the fact that puberty, period most at risk for the onset of DCA, occurs in males later than females [16].
Even in male AN, there is severe bodily despair and therefore an impulse to thinness as in the female AN, but the focus, in addition to the belly and thighs, is often concentrated also at the thoracic level. It is also important to distinguish weight concerns from concern muscle building [7].
Weight loss in males is most frequently achieved through introduction control caloric and physical hyperactivity rather than with evacuative methods, such as self-induced vomiting or use of laxatives and or diuretics. In this regard, it is important to underline the importance of investigating the aspects of compulsiveness in the male, since exercise represents the preferred modality of weight control.
Obsessive calorie control is a symptom that often struggles to disappear even after

recovery weight. Psychiatric comorbidity appears to be more severe in males than females, which makes it more complex the clinical picture and puts serious mortgages on treatment and prognosis. Indeed, one more severe psychiatric comorbidity leads to less *compliance*, greater need for treatment pharmacological, greater need for hospitalization and a more negative prognosis. In particular, in AN male patients show psychiatric comorbidity especially in the area of mood disorders, substance abuse and psychotic disorders, in particular schizophrenia [17]. By contrast, males have fewer suicide attempts than females [7]. In males the distribution of lean mass and fat mass is different than in females for which the BMI is a less reliable indicator of gravity, in fact the presence of muscle mass developed can hide an abnormal reduction in fat mass. Physiologically, the men fat mass is less represented than in women (15% vs 24-28%), where it ensures normal capacity reproductive. The percentage of minimum fat mass compatible with normal vital functions is estimated in the various studies from about 2% to 4% in males and from about 7% to 14% in females.

Therefore, in AN male it would be more useful to study a real picture of clinical severity of body composition and quantify fat loss.

Furthermore, the anamnestic figure of weight loss in the last year would be an indicator diagnostic of severity better than the BMI figure detected in the acute phase of the AN, as the males often report an overweight prior to the onset of the eating disorder and have a higher BMI even in normal weight conditions. Also, in males, the consequences of malnutrition at the bone level are often underestimated: males have a longer duration of bone growth and a higher caloric demand than females,therefore, an episode of AN during adolescence can have more serious consequences with greater risk of osteopenia (36%) and osteoporosis (26%) [18-20].

Conclusions

One of the most problematic aspects of AN male treatment is the delay with which it comes made the diagnosis. Delay which is due to various factors: the stereotype of ED as female ailments, the lack of visibility of ED male in the media, particularly in newspapers, although articles devoted to this theme have quadrupled from 2002 to 2012 also in relation to the increase in ED cases in males [21].

The patients themselves may take a long time to become aware of suffering from an AN, disorder felt to be inappropriate for a male.

Even the family often does not think of a ED in a male child who exhibits weight and weight changes eating behavior, participating in the stereotype of ED as a female disease.

Furthermore, there is no dramatic event such as the suspension of the menstrual cycle that becomes one strong drive to seek treatment.

General practitioners (GPs) play a fundamental role in the early recognition of ED and in particular the AN, as they are generally the first to be consulted by the patient or from the family, but very often they are not sufficiently equipped to recognize the presence of the anorexic symptoms in a male.

Indeed, it is believed that only 50% of patients with ED who turn to GPs are correct diagnosed.

The delay in diagnosis and consequently in treatment, unfortunately, favors an aggravation of the clinical picture and therefore a worse prognosis.

In males, an aspect of negation of symptoms, linked to fear and shame of having a typically female disease that leads them to have a large one resistance to refer to treatment centers.

Also the organization itself of the ED centers and diagnostic methods in a "gender specific" way it does not facilitate the request for treatment, although many efforts have been made in the last few years to modify this setting.

Therapists are often the first and only people to whom males talk about their eating disorder, for this, from the beginning it is necessary to establish a strong relationship of trust and listening and to set up a correct diagnostic framework and multidisciplinary treatment following the indications of the ED Guidelines.
In an interview-based study of male patients who had an episode of AN, it is reported how the most important factors that correlate with healing motivation are feeling understood and being able to go to hospital in order to be able to get away from family and work [22].

On the other hand, however, the data in the literature report that males receive fewer treatments than females and have shorter hospitalization times.
As for the outcome, the data are conflicting.
Some studies indicate a mortality rate after treatment similar to females so as to establish that "the male gender is not an adverse factor in the short and long term outcome [7].
Other authors instead report an early mortality rate after discharge, higher in males compared to females [14]. In any case, a higher age at the onset of the AN and a lower BMI at the entrance are related, like in females, to a higher mortality [3].

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