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RESEARCH ARTICLE

THE COMPLEX INTERPLAY BETWEEN EATING DISORDERS AND PERSONALITY DISORDERS IN CLINICAL PRACTICE: A CASE STUDY OF THREE CLINICAL CASES

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Abstract

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Introduction:-

Epidemiological studies show a frequent co-occurrence of eating disorders and personality disorders. This association is not exceptional in day-to-day clinical practice, as a comorbid Personality Disorder (PD) can be found in over 50% of patients with an Eating Disorder (ED). A meta-analysis of 28 articles (Rosenvinge, 2000) found that 49% of patients undergoing outpatient treatment for their ED and 75% of patients hospitalized for ED had at least one comorbid PD, resulting in a comorbidity rate of 58% for PD among all patients with ED. However, the exact nature of the link between these two disorders has not yet been clarified by empirical data, thus preventing the selection of a specific etiopathogenic model. That said, PDs seem to play an important role in the prognosis of ED (1). They could influence the treatment of ED or impede the process of improvement. The development of integrative therapeutic strategies, specifically designed for patients with an ED and a comorbid PD, could lead to a lasting improvement in their prognosis.

The current classification of EDs, that does not take into account personality structure and/or associated PDs, only incompletely reflects the different clinical subtypes of patients suffering from EDs. This could hinder the retrieval of relevant information concerning the etiology of EDs, their prognosis, or the response to therapy for EDs.

Purpose:

The aim of the study is to describe the prevalence of comorbidity between PD and ED, detailing the occurrence rate of PD relative to the diagnostic subtype of ED. Studies exploring the repercussions of co-morbidity with PD on the clinical presentation of ED and the impact of PD on the outcome of ED will then be presented, as well as the main theoretical models of co-morbidity between PD and ED. Following this, a review will be conducted on the specific therapeutic approaches available for patients with ED and comorbid PD, in order to establish the most effective therapeutic option in combating this comorbidity.

Materials and Methods:-

In order to identify these correlations, three clinical cases were analyzed and a literature review was conducted using the key words ‘eating disorder, personality disorder, comorbidities, hyperphagic episodes, anorexia nervosa, bulimia nervosa’ in the various search engines: Google scholar, PubMed, Embase and PsycINFO.

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Results:-

The case study involves a 21-year-old female patient, Miss M.B., single, unemployed, with an average socio-economic status, who had undergone psychiatric treatment for 3 years, and whose uncle is currently undergoing treatment for depression. The patient was admitted to our facility for treatment of psychomotor agitation, low mood, anhedonia, hypersomnia, and suicidal ideation, as well as self-mutilation and an eating disorder associated with hyperphagia.

During the examination, the patient was observed to exhibit psychomotor retardation, a low mood, suicidal thoughts, despair, low self-esteem, a chronic feeling of emptiness and abandonment, an unstable self-image, a tendency towards impulsivity and relational instability, self-mutilation of the arms and forearms, and several tattoos on the level of the neck and the back of the hand. Upon review of her clinical history, we find a patient experiencing bulimic episodes with the intake of large quantities of food in a limited period of time, accompanied by a sense of loss of control over her eating behavior. She was unable to resort to compensatory behaviors, which led to a weight gain of 5 kg in 10 days, and was morbidly obese with a weight of 120 kg, a height of 1.67 m and a BMI of 43 kg/m².

The requested additional tests included a complete blood count, lipid profile, liver, kidney and thyroid tests, all of which were normal. Serological tests for human immunodeficiency virus and hepatitis B and C were also negative. The diagnosis of a characterized depressive disorder comorbid with a borderline personality disorder and bulimic hyperphagia was accepted. The patient was started on Fluoxetine 20mg, Aripiphi 10mg and Topiramate 100mg. Additionally, the patient appears to have received a low-calorie diet, hygiene and dietary counselling with correction of dietary errors, along with supportive and transference-focused psychotherapy.

The second case was the patient F.S, 35 years of age, single, unemployed, with a history of 3 previous suicide attempts, multiple instances of self-injury, and several hospitalizations at the Ar-razi Hospital of Salé. She was admitted to the hospital for the care of an episode of agitation, low mood, disgust with life and a suicide attempt with an eating disorder.

The patient was well known to the hospital, having been admitted 5 times, with the most recent admission in 2023. One month before her admission, she reportedly became unhappy and anhedonic, with a sense of loss of control over her eating behavior. She seems to have begun ingesting large quantities of food (40 biscuits) and drinking several liters of water, which induced vomiting to prevent weight gain. She was reported to have become aggressive if her parents refused to give her money to buy food, and to have self-mutilated at the slightest frustration with a razor blade several times a week in order to relieve her psychological pain. She seems to have attempted suicide the day before her admission by ingesting medication (a pack of Lamictal 100mg) when she discovered that her weight had reached 66kg (BMI=18.1 kg/m²).

Borderline personality traits emerged as the hospitalization progressed, the symptomatology was diffuse and essentially characterized by a profound depression, an identity disorder, a lack of verbalization of emotions. There was marked impulsivity, interpersonal instability and mood volatility, and finally an inability to be alone, fear of rejection and chronic difficulty in controlling her anger. She always complained of a feeling of emptiness, of her inexistence, of being a spectator of her own life. Additionally, she exhibited symptoms consistent with body dysmorphic disorder.

The complete biological tests (CBC, ionogram, liver, kidney, lipid, thyroid, B-HCG) were all normal. Serological tests for human immunodeficiency virus and hepatitis B and C were also negative. The diagnosis of recurrent depressive disorder with comorbid borderline personality disorder and bulimia nervosa was confirmed. The patient was started on Prisdal 6mg, Fluoxet 60mg, Seroquel 350mg and Lamictal 75mg. She is reported to have benefited from supportive psychotherapy.

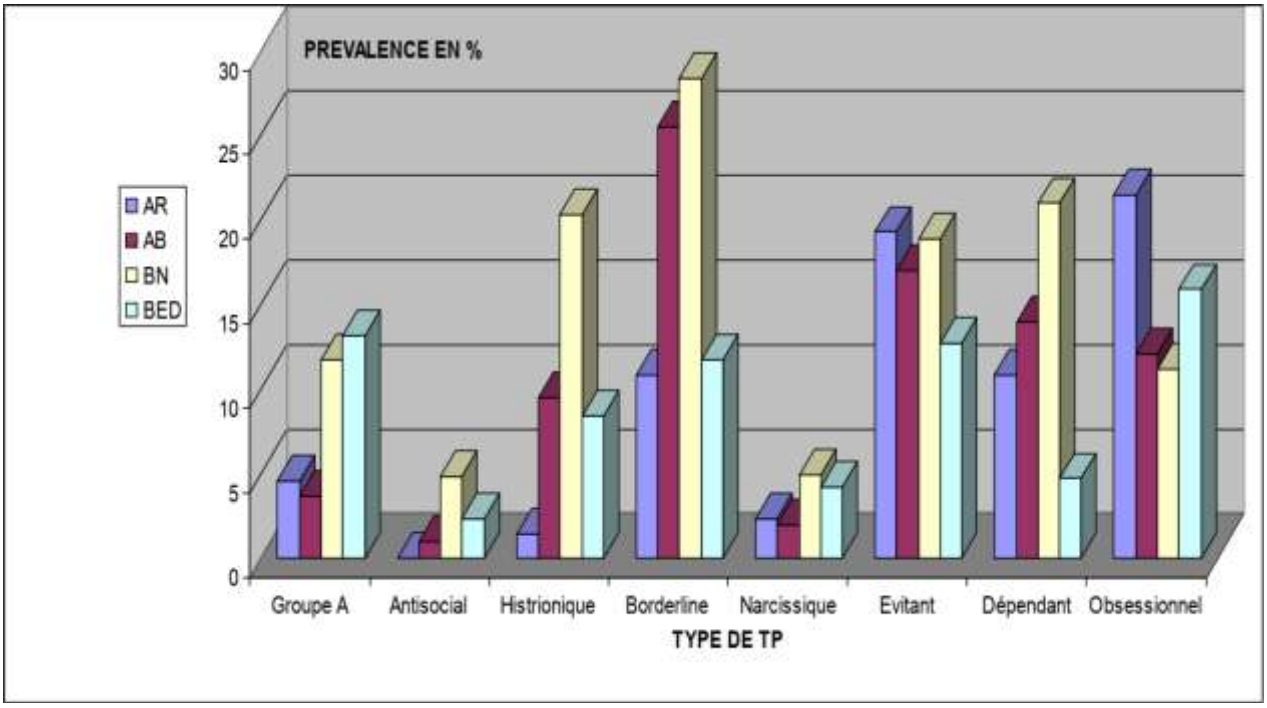
The third case was that of Mrs. N.Z., aged 28, single, and off work for 2 months. She had a history of 3 years of anarchic psychiatric treatment and previous hospitalization at La Vallée clinic. Her medical history also included hepatitis C during childhood and amenorrhea for 1 year. She was admitted for treatment of cachexia with an apparent refusal for food. The patient had lost a significant amount of weight (around 20kg in 7 years) and appeared with a BMI of 12.64 kg/m² (weighing 34kg for a height of 1.64m). She did not seem to be aware of the seriousness of her physical condition. For the past 6 weeks, she had been unable to walk, using a wheelchair and losing all mobility and autonomy. According to the family, the patient constantly needed to be the center of attention, with self-dramatization, theatricality, suggestiveness and exaggerated expression of emotions, deliberate refusal to eat, preoccupation with her weight, which became increasingly important, and true episodes of depersonalization, where the patient could no longer recognize her reflection. This became a source of anxiety, and she decided to avoid looking at herself in the mirror. Based on the history of the illness, the most likely diagnosis is anorexia nervosa with a histrionic personality. A work-up to evaluate the impact of malnutrition (blood count, blood ionogram, vitamin B1, B6 and B12 levels, liver, kidney and lipid profiles) and an etiological work-up

(cerebral CT scan, TSH, serologies: HBV, HCV, TPHA, VDRL, HIV) revealed no particular findings, and the patient was put on Temesta 1mg and Medizapin 5mg, with psycho- education of the patient and her family.

Discussion:-

Comorbidity is defined as the presence of more than one psychiatric disorder in an individual. The comorbidity of pathology X with pathology Y can have significant consequences from a clinical point of view and in terms of public health (Lilenfeld, 1994): - influence of comorbidity Y on the course of pathology X (often more severe) - impact of comorbidity Y on the effectiveness of treatment of pathology X (often more complex treatment) - social cost of pathology X, higher in the case of comorbidity Y, etc.

Numerous studies have quantified the comorbidity of PD in patients with ED. Vitousek (1994) was the first to list all the studies on the prevalence of comorbidity in patients with ED, finding figures ranging from 27% to 93% for PD, depending on the sample. A meta-analysis of 28 articles (Rosenvinge, 2000) found that 49% of patients undergoing outpatient treatment for their ED and 75% of patients hospitalized for ED had at least one comorbid PD, resulting in a comorbidity rate of 58% in all patients with ED. In 2005, Sansone also published a review of the literature concerning the prevalence of PT according to the subtypes of ED. The findings presented by Sansone (2005) for the 4 subtypes of APD are summarized in the following diagram(2). Prevalence of PD by ED according to Sansone, 2005.



The PDs most associated with Anorexia Nervosa (AN), restrictive type, are those of the anxious- fearful PD group C: - Obsessive-compulsive PD (prevalence: 15% in Cassin's meta-analysis, and 21.5% for Sansone),Avoidant PD (with an average prevalence of 14% in Cassin's meta-analysis and 19.3% for Sansone),Dependent PD (7% for Cassin and 10.8% for Sansone) ,Borderline PD may also be associated with pure restrictive anorexic patients (average prevalence: 3% in Cassin's meta-analysis and 10.8% for Sansone)(3).

The subtype of Anorexia Nervosa with binge eating and/or intake of purgatives is the diagnostic subgroup with the most comorbidity with PD with respect to the Anorexia Nervosa Restrictive type (AN-R) and Bulimia Nervosa (BN) groups. It is mainly associated with the dramatic-erratic group B (including Borderline PD) and the anxious-fearful group C of PD. According to Sansone (2005), the PDs most frequently associated with this ED are: - Borderline PD, which is the most frequent PD in these anorexic-bulimic patients (prevalence of 25%), Avoidant PD (17%) - Dependent PD (14%), Obsessive-compulsive PD (12.1%) (3)

The majority (N = 23) of studies of comorbidity between PD and ED (and those which include the largest number of patients) concern Bulimia at normal weight. In the case of bulimic disorder, the comorbidity found with PD varies between 21% and

77%, divided between PD groups B (Borderline, Histrionic) and C (Avoidant, Dependent) (Masjuan, 2003). Borderline PD appears to be the most common PD among patients with BN, with an average prevalence of 21% (Cassin, 2004) or 28% (Sansone, 2005). According to Sansone (2005), the prevalence of Dependent (21%), Histrionic (20.3%) and Avoidant (18.9%) PD are of the same order of magnitude; the figures differ only slightly in the Cassin (2005) study, with 10%, 9% and 19% respectively. Obsessive- compulsive disorder is not infrequent in BNs: 9% for Cassin (2005) and 10% for Sansone (2005). (4)

According to the meta-analysis by Cassin (2005), the most frequent PD in patients with Bing Eating Disorder (BED) are Avoidant PD (11%), Obsessive-Compulsive PD (10%) and Borderline PD (9%). Sansone (2005) reports lower prevalence of PD than for AN or BN type ED, but on a greater diversity of PD, including group A PD: group A PD: 13.2%, Antisocial PD: 2.3%, Histrionic PD: 8.4%, Borderline PD: 11.7%, Narcissistic PD: 4.2%, Avoidant PD: 12.7%, Dependent PD: 4.7%, Obsessive-compulsive PD, the most frequent PD in BED: 15.9%.

The specific conceptualization of the relationship between PDs and EDs is particularly complex (Wonderlich, 2001; O'Brien, 2003). The various theoretical models of comorbidity have been summarized by Wonderlich (1997) and Lilenfeld (2006).

Predisposition:
First, PD can be considered as a predisposing factor for ED. Within this predisposition model, the structure of an individual's personality precedes and favors the onset of the ED. This model implies that personality disorders and eating disorders have distinct etiologies and pathophysiological mechanisms.

Complication - Scar:
Conversely, changes in personality may be consequences or complications of the ED itself. This complication model can be compared to the 'trait-state' artefact mentioned earlier, with the study by Keys (1950) in which certain personality traits in healthy volunteers became pathological after prolonged fasting. The complication model is also known as the 'scar' model. In this model, there are long-lasting personality changes in subjects who have suffered from an ED, changes that persist after the ED has been cured (unlike the 'trait- state' effect, in which personality changes are concomitant with the acute state of the ED).

Common etiology:
In this model, personality traits and/or disorders and the ED are two independent entities, both caused by the same etiological factor(s) (or have at least one etiological factor in common). For example, some (Lyons, 1997) argue that childhood trauma increases the risk of Borderline PD and BN.

Spectrum:
In this spectrum model, PD and ED are seen as phenotypical variations of the same underlying pathology; they are not independent disorders, but rather manifestations of the same disorder. This model can be illustrated in a different branch of psychopathology; for instance, schizotypal PD and schizophrenia are sometimes considered as quantitatively different symptomatic expressions of the same underlying pathology. In the context of co-morbidity between ED and PD, AN has historically been viewed as a variant of the hysterical personality. More recently, some authors have likened AN-R to obsessive-compulsive disorder, although this position remains purely speculative (Serpell, 2002).

Pathoplastia:
The pathoplastia model is not a causal model. In this model, PD and ED each have their own etiological factors. However, PD and ED interact with one another, with each disorder altering the clinical presentation and/or outcome of the other disorder.

Independence:
Finally, the two types of disorder, PD and ED, could be two completely distinct and independent clinical entities, present in an individual purely by chance. In this case, the comorbidity would then be a mere 'artefact', a statistical comorbidity (4).

The groups of patients with ED with PD often have a higher number of psychiatric hospital admissions, a bigger history of suicide attempts, a higher degree of family dysfunction and a lower socio-economic status than patients with ED without PD. Studies comparing the prognosis of EDs with and without PD tend to show that the group with PD is associated with a poorer prognosis. Notably, greater general psychopathology and a lower level of global and social functioning, and, in some cases, a slower improvement in eating disorder symptoms (5).

There are many studies underpinning the model of the predisposition of certain personality traits to the onset of an ED; two reviews of the literature (Stice, 2002; Jacobi, 2004) come to similar conclusions: - perfectionism is the personality factor that has been tested most as a factor predisposing to EDs, AN and BN - obsessive-compulsive disorder is a predisposing factor, but only for AN - impulsivity is not a factor consistently found to predispose to EDs. Several hypotheses can be put forward to explain this lack of association: impulsivity could be a predisposing factor only for a subgroup of EDs; it could emerge after the onset of Eds; or only certain components of impulsivity may act as predisposing factors. The pathoplastic model (in the sense that personality traits or disorders influence the course of ED) was also tested; a number of conclusions can be drawn from all the studies: - group B, in particular Borderline PD, is associated with a poor prognosis for ED, and Obsessive-Compulsive PD for AN (unlike Histrionic PD) - a high Self-Determination score is associated with a good prognosis for ED, but a high level of pain avoidance and a high level of fear of maturity are linked to a poor prognosis for AN.

As seen above, and as demonstrated by the observations made, the comorbidity between ED and Borderline PD is very high. In the meta-analysis by Cassin (2005), the prevalence of Borderline PD is 3% in AN-R, 21% in BN, and 9% in BED. Borderline PD is the most frequent PD among BN and BED patients. Studies published after this meta-analysis report prevalence in the same order of magnitude: 14% of Borderline PD in a sample of BN patients (Zeeck, 2007), and 6.2% of Borderline PD in a sample of 545 ED patients (Godt, 2008).

In parallel with the presented clinical cases, a fairly recent review of the literature (Franko, 2006) on suicidality in subjects suffering from ED showed that 25-35% of BN patients had made at least one suicide attempt, compared with 3-20% of AN patients. However, the likelihood of death by suicide was significantly higher among AN patients.

Indeed, based upon daily clinical experience, Borderline PD with ED tend to have better functioning than Borderline PD without ED: fewer quasi-psychotic episodes, less unstable interpersonal relationships, better social adjustment, less emotional instability. The clinical findings are in line with those of Stone (1990), who suggests a better overall long-term prognosis for the subgroup of Borderline PD with ED versus that of Borderline PD without ED. However, of the various theoretical models of comorbidity, the only model that is not possible in view of the findings of high comorbidity between the disorders in the studies and in the present results is the model of total independence of the two disorders (6)

A recent study (Selby, 2010) showed that sensitivity to rejection, via emotional dysregulation, played a role between Borderline PD and eating problems. Further research is needed to gain a better understanding of the mechanisms underlying this comorbidity between Borderline PD and ED, a complex but important comorbidity, since both pathologies entail a major risk for health and vital prognosis, and undoubtedly require the adaptation of treatment methods (7)

The main aim of the EUR-NET-BPD study was to compare adolescent patients with borderline PD, with or without ED comorbidity. The hypotheses were as follows: greater frequency of suicide attempts and self-harm in borderline patients with ED compared with borderline patients without ED; specific comorbidity (with other Axis I and Axis II disorders) in borderline patients with ED compared with borderline patients without ED(8).

The prevalence of PD in patients with Binge Eating Disorder is as follows: Avoidant (11%), Obsessive-Compulsive (10%) and Borderline (9%), as in the case of the reported patient. The observation is also consistent with the literature regarding the comorbidity between borderline personality disorder and Bulimia Nervosa. Borderline PD appears to be the most common PD in patients with BN, with an average prevalence of 21% (Cassin, 2004) or 28% (Sansone, 2005).

The PDs most associated with Anorexia Nervosa, restrictive type, are those of the anxious-fearful PD group C: - Obsessive-compulsive PD (prevalence: 15% in Cassin's meta-analysis, and 21.5% for Sansone). - Avoidant PD (with an average prevalence of 14% in Cassin's meta-analysis, and 19.3% for Sansone) - Dependent PD (7% for Cassin and 10.8% for Sansone) - Borderline PD may also be associated with pure restrictive anorexic patients (average prevalence: 3% in Cassin's meta-analysis, and 10.8% for Sansone). Contrary to the patient who presented anorexia nervosa with a histrionic personality.

It would seem essential to take account of co-morbidity with a PD in the overall treatment of any patient with an ED (Bruce, 2005). Recent recommendations from the expert consensus of the American Psychiatric Association (APA, 2000) and the United Kingdom National Institute for Clinical Excellence (NICE, 2004) emphasize that comorbid conditions associated with ED require specific attention. These two recommendations include the possibility of targeted interventions on personality components such as perfectionism, emotional instability, impulsiveness and disturbances in interpersonal relationships, in order to optimize the effectiveness of ED treatment. Cognitive Behavioral Therapy (CBT) has been

validated as an effective psychotherapy for ED. CBT primarily targets eating symptoms and underlying distorted cognitions. It can also be useful in the treatment of PD, Interpersonal Therapy (IPT), dialectical behavioral therapy, motivational interviewing. However, no psychotropic treatment has marketing authorization for the indication of PD. With regard to ED, no psychotropic treatment has marketing authorization for AN (Kaye, 1991), and the only drug treatment indicated for BN is fluoxetine. In conclusion, the prescription of a psychotropic treatment may prove useful, either temporarily or in the longer term, as part of the overall treatment of patients with ED and comorbid PD. Although the effects to be expected from such a prescription are modest (9)(10)(11).

Conclusion:-

Although there appears to be an interplay between personality disorders and eating disorders, there are still many grey areas concerning the co-morbidity of the two disorders. The investigation of the etiopathogenesis of the two disorders remains open, and future comorbidity studies could help to better understand certain aspects and to implement more appropriate therapeutic strategies.

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