

Polycystic Ovarian Syndrome in Eating Disorders patients: A poorly explored prognosis factor

Maritza Rodriguez-Guarín MSc., MD.
Equilibrio Outpatient Program for ED Treatment, Bogotá, Colombia.



Abstract

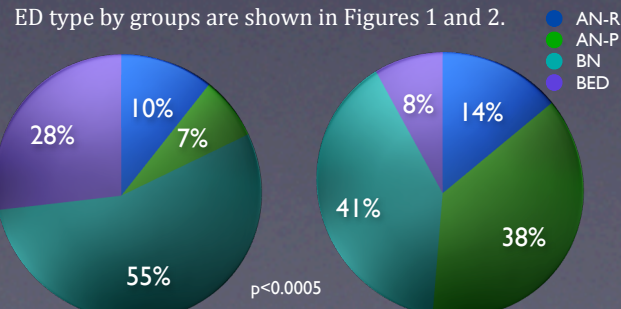
Objectives and Methods: The present study explored and compared the profile of current comorbidities and relapses in the first year after ED treatment in 29 women with AN or bulimic syndromes and PCOS diagnosed by pelvic ultrasound and laboratory tests, with 37 women of the same clinical cohort that did not present PCOS associated with their ED. All patients were evaluated and treated using the same protocol in an outpatient program. ED diagnosis and comorbidity diagnosis were done using the DSM IV SCID. **Results:** Women with PCOS and ED had significant more Bipolar comorbidity ($p < 0.000$), Substance Abuse ($p < 0.04$), multi impulsive behaviors ($p < 0.018$) and overweight or obesity ($p < 0.000$). There were not observable differences in Anxiety Disorders such as Social Anxiety Disorder and PTSD. The 82.7% of patients with PCOS and ED, had a relapse in their ED symptoms, and affective, eating or both episodes compared with 32.4% of patients without PCOS. **Conclusion:** The coexistence of a PCOS in ED patients seems to negatively affect the prognosis, due to the complexity of the comorbidity profile, the affective dysregulation that accompanies it and the tendency to relapse, that makes it necessary to follow and control the affective and impulsive symptoms in these patients.

Introduction

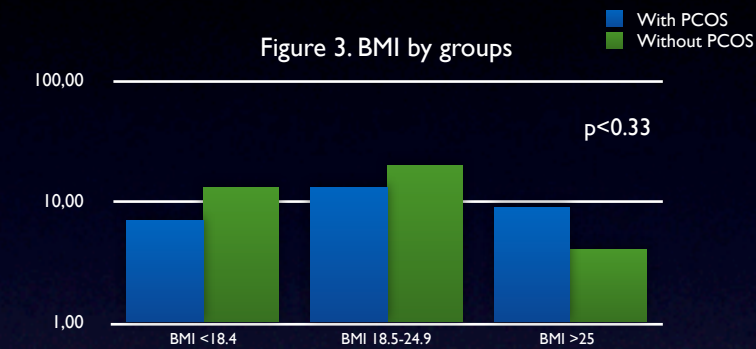
Menstrual irregularities and amenorrhea in ED patients have been extensively described and studied. Nevertheless, frequently those alterations precede the ED symptoms appearance or persist even if the weight and the nutritional status have been normalized. The menstrual cycle alterations can be explained by multiple factors, one of which could be the coexistence of a polycystic ovarian syndrome (PCOS), characterized by ovarian cysts and other metabolic alterations as hyperandrogenism, insuline resistance and obesity. There is little information on this comorbidity and its role on the ED prognosis and treatment response.

Results

Thirty nine patients with ED and PCOS and 37 ED patients without ovarian disease were compared. The ED type by groups are shown in Figures 1 and 2.



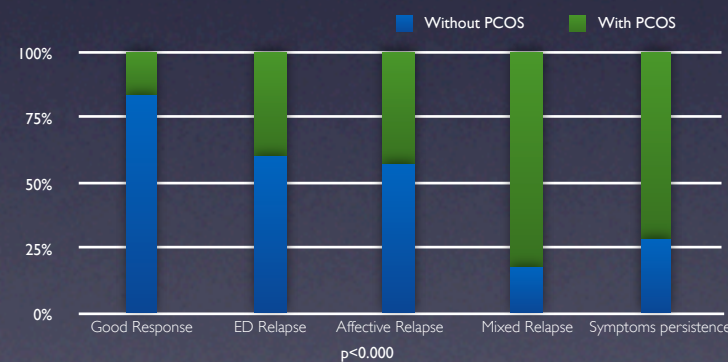
Ages were between 18 to 39 years (Mean 23,7±5). Ages did not differ in a significant way between having or not PCOS, neither ED symptoms chronicity or BMI. In contrast, 83% of patients with PCOS have bulimic subtypes compared with 48% of patients without ovarian cysts. (Figures 1,2,3)



Evolution:

During the course of the study 36 women had ED symptoms relapses, affective episodes or mixed symptoms. A significant worst evolution was observed on behalf of a high number of mixed relapses in patients with PCOS compared with those without ovarian disease. Figure 4.

Figure 4. Symptoms evolution in the first year of treatment



COMORBIDITIES: Current comorbidities in Axis I were : 51,5% OCD, 48,4% Major Depression, 25,7% Substance Abuse or Dependence, 21% Bipolar Disorder, 13,6% PTSD and 9% Phobias. Overweight or Obesity were present in 28 patients. Women with PCOS had significant more Bipolar Disorder, Substance Abuse, Multi-impulsivity and Overweight or Obesity, while major depression and OCD were more frequent in patients without PCOS. More patients with PCOS (41.4%) than without PCOS (16.2%) presented early abandonment of treatment and high rate of relapses of eating, affective or mixed symptoms showing worst prognosis. (Table 1).

Table 1. Bivariate Analysis

Variable	PCOS=29 Freq (%)	No PCOS=37 Freq(%)	χ^2	p
Major Depression	9 (32,4)	23(62,1)	7,14	0,028*
Bipolar Disorder	13 (44,8)	1 (2,7)	17,2	0,000*
OCD	10 (34,5)	24 (64,8)	5,42	0,02*
Substance Abuse	11 (38)	6 (16,2)	4	0,04*
PTSD	2 (6,9)	7 (18,9)	3,8	0,14
Phobic Disorder	2 (6,9)	4 (10,8)	0,30	0,58
Multi-Impulsivity	17 (58,6)	11 (29,7)	5,5	0,018*
Overweight/ Obesity	20 (69)	8 (21,6)	14,9	0,000*
Dropout	12 (41,4)	6 (16,2)	5,18	0,026*
Relapse	24 (82,7)	12 (32,4)	16,6	0,000*

* $p < 0,05$

Conclusions

- In patients with ED and PCOS, bulimic symptoms and the antecedent or current overweight or obesity were more frequent.
- There is a higher prevalence of Bipolar Disorder, Substance Abuse and Multi impulsive behaviors, which favors a higher emotional dysregulation, tendency to early drop outs and relapses, either affective, eating or mixed ones.
- The coexistence of a PCOS in ED patients seems to negatively affect the prognosis, due to the complexity of the comorbidity profile, that makes it necessary to follow and control the affective and impulsive symptoms in these patients.
- Due to the repercussions of those findings, the clinical and ultrasound ovarian exploration should be done as a routine in these patients.
- There is a need of a replication of these findings in higher samples.

References

1. Mc Cluskey S, Evans C, Lacey JH, Pearce JM, Jacobs H. Polycystic ovarios and bulimia. *Fertil Steril* 1991; 55:287-91.
2. Mc Cluskey S, Lacey JH, Pearce JM. Binge Eating and polycystic ovarios. *Lancet* 1992; 340:723.
3. Raphael FJ, Rodin DA, Peattie A, Bano G, Kent A, Nussey SS, Lacey JH. Ovarian morphology and insulin sensitivity in women with bulimia nervosa. *Clin Endocrinol* 1995 Oct; 43(4):451-5.
4. Jahanfar S, Eden JA, Nguyen TV. Bulimia nervosa and polycystic ovary syndrome. *Gynecol Endocrinol*. 1995 Jun;9(2):113-7.
5. Morgan JF, McCluskey SE, Brunton JN, Lacey H. Polycystic ovarian morphology and Bulimia nervosa: A 9-year follow-up study. *Fertil Steril*. 2002 May; 77(5): 928-31.
6. Michelmore KF, Balen AH, Dunger DB. Polycystic ovaries and eating disorders: are they related? *Human Reproduction*, Vol. 16, No. 4, 765-769, April 2001.
7. Mansson M, Holte J, Landin-Wilhelmsen K, Dahlgren E, Johansson A, Mikael Landén M. Women with polycystic ovary syndrome are often depressed or anxious: A case control study. *Psychoneuroendocrinology* (2008) 33, 1132–1138.
8. Jiang B, Kenna HA, Rasgon NL. Genetic overlap between polycystic ovary syndrome and bipolar disorder: the endophenotype hypothesis. *Med Hypotheses* 2009 Dec; 73(6): 996-1004.
9. Rasgon NL, Altshuler L, Fairbanks L, Elman S, Bitran J, Labarca R et al. Reproductive function and risk for PCOS in women treated for bipolar disorder. *Bipolar Disorder* 2005;7: 246-5910
10. O'Donovan C, Kusumakar V, Graves GR, Bird DC. Menstrual abnormalities and polycystic ovary syndrome in women taking valproate for bipolar mood disorder. *J Clin Psychiatry* 2002 Apr;63(4):322-30.
11. McIntyre RS, Mancini DA, McCann S, Srinivasan J, Kennedy SH. Valproate, bipolar disorder and polycystic ovarian syndrome. *Bipol Disord* 2003 Feb;5(1):28-35.
12. Klipstein KG, Goldberg JF. Screening for bipolar disorder in women with polycystic ovary syndrome: a pilot study. *J Affect Disord* 2006 Apr;91(2-3):205-9. Epub 2006 Feb 17.