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•Forum•

Comorbid bipolar disorder and OCD

Heredity in comorbid bipolar disorder and obsessive-compulsive disorder patients

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Summary: Partly due to the overlap of symptom groupings in DSM, psychiatric comorbidity is extremely common. One of the most common and difficult to manage comorbid conditions is the co-occurrence of bipolar disorder (BD) and obsessive compulsive disorder (OCD). However, the key nosological question about this condition – whether they are two distinct disorders or a subtype of one of the disorders – remains unresolved. In order to help address this unanswered question, we updated our recent systematic review, searching the electronic databases MEDLINE, Embase, and PsycINFO to specifically investigate the heredity in BD-OCD patients. We identified a total of 8 relevant papers, the majority of which found that, compared to non-BD-OCD patients, BD-OCD patients were more likely to have a family history for mood disorders and less likely to have a family history for OCD. These results support the view that the majority of cases of comorbid BD-OCD are, in fact, BD cases. If confirmed in larger, more focused studies, this conclusion would have important nosological and clinical implications.

Keywords: bipolar disorder; obsessive-compulsive; comorbidity; heredity

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1. Introduction

In 1970 the famous epidemiologist Alvan R. Feinstein defined *comorbidity* in relation to a specific index condition as, "*any distinct additional entity that has existed or may occur during the clinical course of a patient who has the index disease under study*".[1] In Feinstein's formulation, the implication was that a completely different and independent disease occurred at the same time as another disease.

In contrast to this approach, the Diagnostic and Statistical Manual of Mental Disorders (DSM) explicitly produces overlapping clinical criteria for many diagnoses, especially mood and anxiety disorders, guaranteeing comorbidity in quite a different sense than in the medical meaning of the term as co-occurrence of independent diseases.[1]

Psychiatric comorbidity is extremely common in bipolar disorder (BD). More than half of BD patients have an additional diagnosis, one of the most difficult to manage being obsessive-compulsive disorder (OCD).[2]

BD-OCD comorbidity has important nosological and clinical implications. The nosological question is whether this common "comorbidity" represents two diseases, or multiple symptoms of one disease. The clinical question is whether and how to treat the comorbidity since the main treatment for one disease can worsen the other diseases. Serotonin reuptake inhibitors (SSRIs) for OCD can cause mania and/or more mood episodes in BD.[3]

Although recent studies have investigated the co-occurrence of anxiety and bipolar disorders, the topic is insufficiently studied and the relationship between BD and OCD remains unclear.[4] In order to address this unanswered question, we updated our recent systematic review[5] to specifically investigate the heredity in BD-OCD patients.

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2. Updated systematic review

Studies published in English through 31 October 2015 were identified by searching MEDLINE, Embase, and PsycINFO. We combined the search strategy of free text terms and exploded MESH headings for the topics of bipolar disorder, obsessive-compulsive disorder, and treatment combined as following:

(((((((((“Bipolar Disorder”[Mesh]) OR Bipolar disorder) OR BD) OR Bipolar) OR Manic depressive disorder) OR Manic depressive) OR Manic)) AND ((((“Obsessive-Compulsive Disorder”[Mesh]) OR OCD) OR Obsessive-compulsive) OR Obsessive-compulsive disorder))).

Table 1. Studies that met inclusion/exclusion criteria for systematic review about comorbid BD-OCD

reference	study design	country	study population	diagnostic method; criteria	results	study quality[a]
Angst 2005[7]	prospective cohort	Switzerland	591 subjects recruited at age 19 or 20 and assessed over 20 years: OCD (n=30), BD (n=93) OCD-BD (n=44)	Broad definition for BD and OCD; DSM-IV	No statistically significant differences in family history for OCD, depression, or mania in OCD patients with or without BD comorbidity	26/31
Berutti 2014[8]	cross sectional	Brazil	BD (n=488) age>18	SCID; DSM-IV	BD patients with a family history of mood disorders presented with significantly higher lifetime prevalence of OCD	24/31
Koyuncu 2010[9]	case control	Turkey	BD (n=214) mean age=34.8 (10.3) OCD-BD (n=35) mean age=36.2 (15.9)	SCID; DSM-IV	Higher prevalence of OCD in first-degree relatives of OCD-BD patients versus that in relatives of non-OCD-BD patients (45.7% vs. 5.7%); no statistically significant differences in family history for BD	20/31
Mahasuar 2011[10]	case control	India	OCD (n=91) mean age=29.4 (8.3), BD-OCD (n=34) mean age=28.4 (7.1)	SCID; DSM-IV	Statistically non-significant trends of higher prevalence of family history for mood disorders in BD-OCD patients and lower prevalence of family history for OCD versus those in non-BD-OCD patients	19/31
Perugi 1998[11]	case control	Italy	OCD (n=135) mean age=38.4 (13.3)	NS; DSM-III-R	Positive correlation between episodic OCD and family history for mood disorders compared with patients with continuous OCD (54.1% vs. 34.7%)	21/31
Perugi 2002[12]	case control	Italy	OCD-MDE (n=68) mean age=34.2 (12.5) BD-OCD (n=38) mean age=35.9 (12.2)	SCID; DSM-IV	Statistically non-significant trends of higher prevalence of family history for mood disorders and lower prevalence of family history for OCD in BD-OCD patients versus those in non-BD-OCD patients	20/31
Shashidhara 2015[13]	cross sectional	India	BD-I (n=396, age>18)	SCID; DSM-IV	Higher prevalence of family history for mood disorders in BD-OCD patients compared to family history in OCD patients (33.3% vs. 6.7%)	23/31
Zutshi 2007[14]	case control	India	OCD (n=106) mean age=26.5 (7.4) BD-OCD (n=28) mean age=27.9 (6.7)	SCID; DSM-IV	Compared to non-BD-OCD patients, BD-OCD patients have higher prevalence of family history for mood disorder (36% vs. 6%) and lower prevalence of family history for OCD (0.0% vs. 21%)	20/31

BD, bipolar disorder
OCD, obsessive-compulsive disorder
MDE, Major Depressive Disorder
DSM, Diagnostic and Statistical Manual of Mental Disorders
SCID, Structured Clinical Interview
NS, Not specified
[a]Checklist for measuring study quality developed by Downs and Black[6]

The eight studies shown in Table 1 were selected. No studies were found that examined familial transmission of comorbid BD-OCD. Seven studies[7-10,12-14] assessed family history for OCD or BD in comorbid BD-OCD probands using semi-structured or unstructured clinical interviews and clinical records. Five studies[8,10,12-14] reported that compared to non-BD-OCD patients, BD-OCD patients were more likely to have a family history for mood disorders and less likely to have a family history for OCD; one study[9] reported the opposite. The sole population-based study[7] found no statistically significant differences in the prevalence of a family history for OCD, depression, or mania between OCD patients with or without BD comorbidity. In one study,[11] a family history for mood disorders was reported to be more frequent in patients with episodic OCD than in those with continuous or chronic OCD symptoms.

3. Conclusions

Results from this review support the view that the majority of cases of comorbid BD-OCD are, in fact, BD cases. Considering course of illness as a key diagnostic validator, the majority of comorbid OCD cases appeared to be related to mood episodes. OC symptoms in comorbid patients appeared more often – and sometimes exclusively – during depressive episodes, and comorbid BD and OCD cycled together, with OC symptoms often remitting during manic/hypomanic episodes.[5]

From a therapeutic perspective, Osler's view that medicine should focus on the treatment of diseases, not on the treatment of symptoms, is consistent with the recommended approach for treating comorbid BD-OCD. Mood stabilization should be the first objective in treating apparent BD-OCD patients, *not* immediate treatment with selective serotonin reuptake inhibitors (SSRIs) In a minority of BD patients with refractory OCD, addition of low doses of antidepressants might also be considered while strictly monitoring emerging symptoms of mania and hypomania.[3]

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Conflict of interest statement

None of the authors have any of conflict of interest related to this manuscript.

Authors' contributions

Authors AA, MT, AO, and BS designed the study and wrote the protocol. Studies were identified and independently reviewed for eligibility by two authors (AA, AO) in a two-step based process. Data were extracted by one author (AA) and supervised by a second author (SNG) using an ad-hoc developed data extraction spreadsheet. The same authors who performed data extraction (AA, SNG) independently assessed the quality of selected studies using the checklist developed by Downs and Black both for randomized and non-randomized studies. AA, MT, AO, and BS have been involved in drafting the manuscript and SNG revised it critically. SNG has given final approval of the version to be published. All authors read and approved the final manuscript.

双相情感障碍共病强迫症患者的遗传性

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概述：精神病共病极为常见，其部分原因是 DSM 诊断系统症状分组重叠。其中双相障碍 (bipolar disorder, BD) 和强迫症 (obsessive compulsive disorder, OCD) 的共同出现是最常见的共病之一。然而，我们尚未解决有关该病症的关键疾病分类问题，即它们两个不同的疾病还是其中一个病症中的另一种亚型。为了解决这个悬而未决的问题，我们更新了最近的系统综述，即搜索电子数据库 MEDLINE、Embase 和 PsycINFO 专门研究 BD 与 OCD 共病患者的遗传性。我们一共纳入了 8 篇相关论文，其中大部分研究的发现是，相较于非 BD 与 OCD 共病的患者，共病患者更可能有心境障碍的家族史而不太可能有强迫症的家族病史。这些结果支持大多数 BD 与 OCD 共病的案例实际上 BD 患者。如果这一结论能在更大的、更集中的研究中得到证实，将具有重要的疾病分类和临床意义。

关键词：双相情感障碍；强迫症；共病；遗传

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