Body Dysmorphic Disorder in Patients With Cosmetic Surgery

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Body dysmorphic disorder (BDD) refers to a preoccupation with an imagined or grossly exaggerated minor physical defect. Those with BDD might seek medical help (cosmetic surgery) rather than attend a psychiatric clinic. Therefore, it is often underdiagnosed. To investigate the prevalence of BDD, we reviewed the medical records of 817 individuals who sought cosmetic surgery during a 3-year period. The outcome after surgery was described for those with BDD. Our results showed that 63 (7.7%) patients had BDD, of which 54 (85.7%) were diagnosed at preoperative evaluation. However, nine (14.3%) patients went undiagnosed and all had a bad outcome after cosmetic surgery. BDD was not uncommon at the cosmetic surgery clinic. Our results support the idea that cosmetic surgery should be avoided for patients with BDD. The development of a more effective diagnostic procedure could help address this issue.

Key Words: body dysmorphic disorder, cosmetic surgery
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In both western and eastern societies, growing numbers of people are seeking cosmetic surgery to improve their appearance or to retain their youthfulness. The majority of these people can benefit from such cosmetic surgery, which restores their self-confidence and could lead to improved social interaction. However, a small number become exhausted through efforts to "improve" every detail of their looks; even slight or imagined defects. Most of them might be patients with body dysmorphic disorder (BDD).

A prevalence rate of 1.7–2.4% for BDD has been reported in the general population; this rate exceeds that of major psychiatric disorders such as schizophrenia and bipolar I disorder [1,2]. BDD is characterized by a preoccupation with an imagined or grossly exaggerated minor physical defect. This preoccupation may be with facial features or areas including genitalia, breasts, buttocks, and skin [3]. Patients commonly exhibit perfectionist thinking and maladaptive attractiveness beliefs [4]. They repeatedly examine and alter the particular body part in a compulsive manner, which leads to impairment in daily functioning. Patients with BDD often seek surgical correction of "deformities". It has been estimated that 26–40% of patients with BDD have undergone cosmetic surgery [5,6]. Patients with BDD are usually excluded at preoperative assessment.

In this retrospective study, we aimed to calculate, at preoperative and postoperative assessments, the number of patients with BDD among a sample who were seeking cosmetic surgery. The outcome of cosmetic surgery was also investigated for those with BDD who received surgery.

Methods

We reviewed the medical records of the Plastic Surgery Department at Kaohsiung Medical University Hospital,

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Taiwan, from January 2006 to December 2008. We enrolled consecutive patients who came to the outpatient department of an experienced plastic surgeon (Dr C.S. Lai) and asked for cosmetic surgery. The surgeon conducted a preoperative assessment, including making a diagnosis of BDD according to the Diagnostic and Statistical Manual of Mental Disorders, 4th edition, Text Revision (DSM-IV-TR) [7]. The diagnostic criteria include the following: (1) Preoccupation with an imagined or slight defect in appearance. If a slight physical anomaly is present, the person's concern is markedly excessive; (2) The preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning; (3) The preoccupation is not better accounted for by another mental disorder (e.g. dissatisfaction with body shape and size in anorexia nervosa). The diagnostic reliability of this experienced plastic surgeon was examined by a senior psychiatrist.

Patients who were considered to have BDD were advised not to undergo cosmetic surgery. After the operation, patients' mental state was assessed based on the DSM-IV-TR diagnostic criteria. In this paper, we present postoperative BDD patients with data on their sex, occupation, type of surgery, frequency of surgery, and final outcome.

Results

During the study period, 817 patients visited the cosmetic outpatient department and requested cosmetic surgery. A total of 763 received cosmetic surgery, including 559 for blepharoplasty (73.3%), 48 for scar revision (6.3%), 41 for rhinoplasty (5.4%), 37 for mammoplasty (4.8%), 31 for face lift (4.1%), 28 for liposuction (3.7%). Twelve patients underwent other procedures (1.6%), and seven (0.9%) had simultaneous blepharoplasty and rhinoplasty. There were 671 women (87.9%) and 92 men (12.1%). Preoperatively, 54 patients (6.6%) were diagnosed with BDD and cosmetic operations were not advised by the surgeon. Seven of these were men. Typical clinical pictures of these patients included feeling that many people paid attention to (very mild) defects that made them embarrassed. In the clinic, they often held a mirror in one hand, took a pencil in the other, put pictures of models or movie stars on the table, and told the physician how to perform the operation perfectly. In addition, they exaggeratedly criticized how badly the previous surgeon had performed, and falsely believed that the situation could be remedied through a very simple procedure.

Among the operated cases, nine patients (1.2%) presented with BDD postoperatively. They were unsatisfied immediately after the operation, and spent many hours in front of the mirror to examine their defect. Their preoccupation with "failed" surgery made them upset, angry, unable to sleep well, and even have thoughts of suicide. They often complained that the postoperative result was worse than their preoperative appearance. They engaged in trivial fault-finding, told the surgeon how easily their fault could be remedied, and forced the surgeon to reoperate, without having the patience to wait for any swelling to subside and scarring to mature. Even after such revision at the patient's request, new dissatisfactions arose.

Among nine patients with BDD who underwent surgery, two (22.2%) forced the surgeon to carry out revision (but without success), and patients still exaggerated the aspect of their appearance that they did not like. It was difficult to persuade patients to accept the surgeon's refusal and unwillingness to perform further cosmetic surgery. The outcome included refunding the fee in three cases (33.3%), and losing to follow-up in six others (66.7%) (Table).

The overall prevalence of BDD in this population was 7.7% (63/817). Fifty-four (85.7%) of the 63 patients with BDD were diagnosed preoperatively, and ineffective surgery was avoided. However, there were still nine patients (14.3%) in whom BDD was found only after surgery.

Discussion

Our study showed that 7.7% of subjects seeking cosmetic surgery were patients with BDD. Among these, 85.7% were screened preoperatively and advised against surgery. The remaining 14.3% of patients with BDD who received cosmetic surgery presented with unfavorable outcomes.

As our results show, BDD is not uncommon in the cosmetic surgery clinic. Studies of prevalence of BDD have shown that it exists in 0.8% of psychiatric outpatients [8], which is much lower than in other clinics, such as 10% in maxillofacial outpatients [9], 9.1% for

Table. Characteristics of the patients with body dysmorphic syndrome

Case	Age (yr)/sex	Occupation	Type of surgery	Frequency of surgery	Outcome
1	48/F	Housewife	Rhinoplasty	2nd surgery	Lost to follow-up
2	48/F	Retired teacher	Blepharoplasty	2nd surgery	Revision and refunding
3	54/F	Retired teacher	Blepharoplasty	Fresh	Lost to follow-up
4	28/F	Bank clerk	Augmentation rhinoplasty	Fresh	Revision and refunding
5	63/F	Housewife	Blepharoplasty	2nd surgery	Refunding
6	64/M	Business man	Blepharoplasty	Fresh	Lost to follow-up
7	58/F	Housewife	Face lift	Fresh	Lost to follow-up
8	35/F	Housewife	Liposuction	Fresh	Lost to follow-up
9	25/F	Model	Blepharoplasty	Fresh	Lost to follow-up

F = Female; M = male

a sample of cosmetic surgery applicants [10], 11.9% for dermatology patients [11], 15.2% for a dermatological surgery clinic [12], 8.8% for individual with acne [13], and 20% for patients with specific concern about dental appearance [14]. The high variation in rates reveals that, although BDD is considered a mental problem, it is more commonly seen in other clinics than in mental health units. Patients' illness behavior is illustrated by the fact that many patients believe that cosmetic treatment is the solution to their appearance problems, and they would rather see a surgeon, dermatologist or dentist than a psychiatrist [15]. These patients believe that their disorder is physical and not mental. They are usually too embarrassed and ashamed to report their symptoms directly to clinicians [16]. As cosmetic surgeons often have to raise the first suspicion of BDD, they are encouraged to be familiar with standardized diagnostic criteria, although making a diagnosis of BDD can present challenges. It is suggested that there is an increasing need for early detection of BDD by all specialties [17]. Even with an experienced cosmetic surgeon in the present study, 14.3% of patients with BDD were still not diagnosed at preoperative evaluation. The subsequent cosmetic surgery led to unfavorable outcomes.

One-third of all patients disputed the "failure" of the surgery, and insisted on a refund of fees. The rest did not return for further evaluation and management as suggested. All of these patients with BDD were believed to have sought further cosmetic surgery. Our findings were compatible with previous studies that patients with BDD have a lower satisfaction rate than those without BDD, and this worsens for those with repeat surgery [18]. Most patients will seek another cosmetic surgeon for further treatment [19,20]. A recent 5-year prospective study has suggested that cosmetic surgery has no significant effects on various aspects of BDD, including symptoms *per se*, and related disability and comorbidity [21]. In the worst cases, some patients become litigious [19,22].

Some limitations of the present study need to be addressed. First, to minimize the diagnostic inconsistency between plastic surgeons, this study was conducted by a single blepharoplasty-dominated cosmetic surgery clinic. Thus it is difficult to generalize the results to other clinics. In future studies, blepharoplasty-specific cases or inclusion of more types of plastic surgery will be suggested. Second, we did not compare patients with BDD diagnosed at preoperative assessment with those diagnosed postoperatively. It was hard to establish if the surgery had a negative effect or had no effect on outcome. In addition, the number of BDD patients who underwent surgery was too small for us to perform quantitative statistical analysis. Further studies with larger samples should provide data that are more informative.

In conclusion, BDD is common in cosmetic surgery clinics. It needs to be identified before surgery in patients who are seeking cosmetic correction. It is suggested that surgeons ensure that patients have realistic expectations regarding the outcome of the surgery, rather than expecting the procedure to resolve long-established personal issues. A detailed preoperative history-taking and psychiatric evaluation are recommended, either through comprehensive psychiatric interview or a screening questionnaire tool [23]. Cosmetic surgery might be ineffective in reducing symptom severity and improving outcome for those patients with BDD.

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美容手術者之身體異型性疾患

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身體異型性疾患是指想像或是誇大身體的些微缺陷。身體異型性疾患的患者常常尋求整型美容的治療，而非精神醫療，因而常常被忽略而未被診斷出來。本研究回顧了 3 年內接受整形手術的 817 個案例，分別在術前與術後判斷個案是否有身體異型性症候群。也進一步描述接受手術後的身體異型性疾患的結果。結果顯示，共有 7.7% 的個案有身體異型性疾患，85.7% 的身體異型性疾患患者在術前即被篩選出來，其餘的 14.3% 並未在手術前評估出來。且這些未被篩選出來的身體異型性疾患患者接受手術後有不好的預後。本研究發現支持應避免對身體異型性疾患患者進行整型手術。診斷與治療身體異型性疾患對整型外科醫師是一種挑戰，發展更有效的診斷流程是未來重要的發展。

關鍵詞：身體異型性疾患，美容手術

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