

Frequency of Body Dysmorphic Disorder Patients Presenting for Cosmetic Surgery Procedure

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Introduction

Extracranial radiosurgery involves shooting surgical doses of radiation for the management of moving targets cancer/oligometas and is characterized by accurate target delineation, robust motion management and fast dose delivery (3-8 fractions).

Method

Basic 3D medical imaging acquisition and reconstruction principles are based on the assumption that the object being imaged is static over the course of the acquisition. Patient motion and organ distortion, whether the result of voluntary patient movement or natural functions such as respiration, can impact target design due to artifacts and thus delivered doses will be less accurate and precise. Instead, a common strategy employed was to expand the target volume by a safety margin to accommodate the estimated motion of the target volume and then to irradiate larger fields under the expectation that this would compensate for the unknown motion which would lead to higher toxicity when we are treating stereotactic targets (measuring less than 5 cms).

Results

In the past two decades, imaging, planning and delivery technologies have progressed to the point that it is now possible to deal with a 4D model of the patient (consisting of three spatial dimensions plus time as the fourth dimension) which is simply called 4D radiotherapy. The introduction of 4DCT into radiation therapy was quickly followed by 4D MRI, 4D cone beam CT and 4D PET. All these tools have enabled us to capture the motion information accurately and can be utilized in the delivery of the treatment.

Conclusion

5D imaging, are dynamic 3D images (4D) that are acquired at multiple time points and patterns of deformations are analyzed. The correlations in 5th dimension using deformable image registration softwares (e.g. the pattern of deformation for dynamic CT imaging) can be extracted for recognition, tracking and diagnosis of the complications of radiosurgery. Techniques to optimize 4D imaging and 5D imaging and incorporating into the workflow for

radiosurgery will be the key into the future of safe radiosurgery practice. Keywords: Cosmetic surgery, psychology, psychiatry, face, body, disorder

Background/Objectives

Body dysmorphic disorder (BDD) is a mental disorder whereby patient can't stop thinking about one or more perceived defects or flaws in the appearance - a flaw that, to others, is either minor or not observable.

BDD patient may present for surgical or non-surgical cosmetic procedure for improvement in any part of the face or body. Most frequently, these procedures are performed in a private sector and may be financial burden compounding the severity of symptoms of BDD.

Purpose of the Study

To evaluate the frequency of patients presenting for cosmetic surgical procedures and the resulting outcome.

Setting

- Dundrum Medical Cosmetic Clinic, Dublin 16, Ireland.
- Faisal Hospital, Peoples Colony, Faisalabad, Pakistan.

Study Period

- Two years from Feb 2009 to Jan 2011
- Five years from Jan 2014 to Dec 2018

Type of Study

Cross sectional observational study

Material and Methods

All the patients of either gender presented for Cosmetic Surgery procedure were included in this study. Detailed history including mental illness and related medications, local and general physical examination and relevant investigation performed. At the time, we did not have exact guide lines or recommendation for the management of BDD patient presenting for cosmetic surgery procedure.

Results

Total number of patients who had cosmetic surgical procedure were 3427 including 1116 in Dundrum Medical Cosmetic Clinic, Dublin, Ireland and 2311 in Faisal Hospital, Faisalabad, Pakistan. There were 1218 (35.54) male and 2209 (64.45) female patients.

No complication was noted after the surgery in any of the patient, however eight patients (0.233 %) out of 3427 patients made written complaint about unsatisfactory results and symptoms related to BDD. The satisfaction level achieved with either surgical or non-surgical procedures were in the range of 80 - 90 % by using visual analogue scoring system at 3 months and 6 months interval after the procedure. All the plaintiffs were female.

Conclusion

Careful thorough psychological evaluation of the patient is necessary prior to surgery. Although realistic expectation explained, patients with BDD conditions are most likely to remain unsatisfied and are potential candidate of medico-legal issues. With the help of this study in liaison with a psychiatrist, the author has been able to formulate guidelines/recommendations for the combined management of BDD patients seeking Aesthetic / Cosmetic Surgery.

Introduction

Body dysmorphic disorder (BDD) is a mental disorder whereby patient can't stop thinking about one or more perceived defects or flaws in the appearance - a flaw that, to others, is either minor or not observable. However, the patient may feel so ashamed and anxious that he avoids many social situations.

BDD often begins in adolescence and may remain undiagnosed for years. Withdrawal from occupational, social and sexual interactions is also common; in one series, 30% of patients perceived themselves so impaired that they became housebound (1).

BDD has been considered a contraindication to cosmetic procedures and surgeries. However, recent evidences support more refined decision-making based on BDD severity and patient's overall level of functioning. The appropriate procedure for BDD patient should be considered based on strong consideration which should include a mild to moderate or severe disease categories, patient history, the procedure and defect under consideration, predicted satisfaction level, patient safety and surgeon comfort (2). BDD patient may present for surgical or non-surgical cosmetic procedure for improvement in any part of the face or body. Most

frequently, these procedures are performed in a private sector and the high financial cost may create overly high expectations from the procedure.

Given the multitude of studies and reports indicating that cosmetic treatments fail to help patients with BDD and put the treating surgeon at undue risks and the relative ease and effectiveness of screening for BDD, we wondered why plastic surgeons, including ourselves, do not use an established BDD screening (screening questionnaire for the diagnosis of BDD) (3) instrument as a matter of routine. There are several methods for assessing BDD severity: the Yale-Brown Obsessive Compulsive Scale Modified for BDD (BDD-YBOCS), the Clinical Global Impression Scale, and the Body Dysmorphic Disorder Examination. The questionnaire comprises of nine items. The range is 0-72 where 72 is the most severe. There are as yet no blood tests, brain-scanning techniques, or other tools sufficient to diagnose psychiatric disorders, although such tools are being developed.

Perhaps, most plastic surgeons are aware that BDD exists among their patients, most underestimate the rate at which BDD occurs. In a survey study, 84% of plastic surgeons said they had performed surgery on a patient only to realize after the operation that the patient had BDD. A 2001 survey of 265 members of the American Society for Aesthetic Plastic Surgery found that the surgeons thought that only 2% of patients seen for an initial cosmetic surgery consultation have BDD, whereas research studies indicate the rate is actually 7-20%. These data highlight the need for plastic surgeons to use a validated, accurate, standardized, and less biased method to identify BDD (4).

Behaviors related to BDD includes avoidance of situations that might exacerbate their body defect, avoidance of social situations that might cause humiliation and mirror checking, hair grooming, excessive medical visits including Plastic / Cosmetic Surgery procedures. About 40% had Plastic/Cosmetic Surgery procedure. Many had multiple procedures even as many as 15 (6).

Results

More than 99% patients were highly satisfied with their procedure. The result was compiled over a period of six month with periodical follow up of the patients to the surgeon.

Only 0.3% were moderately satisfied. These patients also took legal procedure against the surgeon but ultimately they could not prove their point of view and the outcome was in our favor of surgeon.

LEVEL OF SATISFACTION AFTER PROCEDURE (n=3427)			
	DESCRIPTION	FREQUENCY (NO)	FREQUENCY (%)
1	Highly Satisfied (80 - 100%)	3419	99.7%
2	Moderately Satisfied (50 – 79%)	8	0.3%
3	Less Satisfied (20 – 49%)	Nil	

Table 1: Level of Satisfaction

Discussion

BDD can seriously affect daily life, including work, social life and relationships. BDD can also lead to depression, self-harm and even thoughts of suicide. Anxiety, shame and secondary depression are frequent concomitants of the disorder. In addition, over 50% of BDD patients may obtain cosmetic surgery. These procedures are frequently repeated a number of times, usually provide temporary relief at best and at worst create a grotesque and irreversible new improved appearance (5). A recent study corroborate evidence that many BDD patients seek cosmetic surgery procedures but only two percent of procedures actually reduced the severity of BDD (6).

It is important to cover the BDD patient undergoing for cosmetic surgery procedure with the psychiatric treatments with serotonin reuptake inhibitors and cognitive behavioral therapy appear to be effective for what can be a debilitating disorder (6). BDD may be related to obsessive-compulsive disorder (OCD) on several dimensions, including symptoms profile, patterns of co morbidity, family history, and a possible preferential response to serotonin reuptake inhibitors. The most common surgical procedures sought were rhinoplasty and breast augmentation, while the most common minimally invasive treatments were facial wrinkles treatment, LASER, platelet rich plasma (PRP) and chemical peel treatment. Almost quarter of all the requested procedures involved facial procedures. The findings concluded that more than a third of patients received multiple procedures (6).

It has been found with evidence in these studies that in terms of long term follow up after cosmetic surgery procedures, only 25 percent of the patients showed an improvement in their appraisal of the treated body part and showed a long term decreased preoccupation (2,5). In the DSM-IV Field Trial of OCD, it was found that 51 patients who met criteria for BDD, 48.7% were mostly or completely certain that their defect really existed. Co morbidity between OCD and BDD may be as high as 38% (7).

Depending on the patient's history, severity of symptoms, the procedures and defects under consideration, predicted satisfaction, and most importantly, patient safety and surgeon's comfort level. The surgeon may decide whether or not to operate. Plastic surgery offers patients an opportunity for functional restoration or aesthetic physical rejuvenation. Many believe that there are mental benefits as well, and surgery has even been discussed as a potential treatment for patients with BDD in conjunction with psychotherapy - a process defined as eumorphic plastic surgery (8).

In a study by Megan M Kelly et al (8), the authors observed that cosmetic treatments for BDD rarely resolve symptoms of BDD, and in some cases, make symptoms worse, so the cosmetic surgery/treatment is not recommended for the BDD patients. However, several evidence-based treatments exist for BDD that are associated with improvement in symptoms and functioning, including serotonin reuptake inhibitors (SRIs), and cognitive-behavioral therapy. Dey et al (10) measured prevalence of body dysmorphic disorders and found equal gender distribution. They found that body dysmorphic disorders is an under detected disorder in cosmetic surgery. However, it is quite frequent in my cross sectional study of 3427, all the eight (0,223%) plaintiffs were female.



Fig. 1: Pre Op (1/04/2010) and Post Op (18/05/2010)

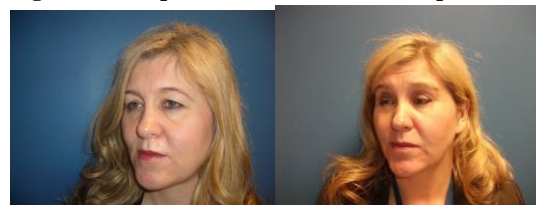


Fig. 2: Pre Op (1/04/2010) and Post Op (18/05/2010)



Fig. 3: Pre Op (1/04/2010) and Post Op (18/05/2010)

Conclusion

Patients with BDD often seek cosmetic treatment. Given the documented risks and harms of surgery for patients with BDD, a systematic process for identifying such patients who seek cosmetic surgery is imperative.

We recommend to screen all the patients presenting for Cosmetic Surgery procedure for BDD and a carefully planned assessment performed before any surgical or non-surgical intervention to avoid litigation.

For evaluating the patients following parameters may be considered:

INTERFERENCE DUE TO THOUGHTS ABOUT BODY DEFECT

- Mild, slight interference with social, occupational, or role activities, but overall performance not impaired.
- Moderate, definite interference with social, occupational, or role performance, but still manageable.
- Severe, causes substantial impairment in social, occupational, or role performance
- Extreme, incapacitating.

The surgeon should take his own subjective assessment to proceed with the procedure.

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