

## CASE REPORT

# One-year follow-up of amputation as a curative treatment for body integrity dysphoria: A case report

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**Key Clinical Message**

Elective amputation as a treatment for Body Integrity Identity Disorder (BIID) or Body Integrity Dysphoria (BID) where noninvasive treatments prove ineffective and the patient's distress is substantial, may permit long-term remission of symptoms at follow-up.

**Abstract**

We present the one-year follow-up post-surgery of an ambidextrous male who sought elective amputation of his left hand's fourth and fifth fingers after an unsuccessful trial of psychotherapy and pharmacotherapy for Body Integrity Dysphoria. He had no psychiatric comorbidities. At one-year follow-up, his dysphoria was still in remission. He exhibited full adaptation in his social and occupational life, demonstrating increased ease in hand use compared to pre-amputation. He reported sleeping well, happiness, good health and continued acceptance by friends and family. This one-year post-surgery follow-up, at 22 years old, underscores the efficacy of amputation as a curative treatment, high patient satisfaction, and the quality of life gained through the procedure.

**KEYWORDS**

amputation, body dysmorphic disorder, body dysphoria, psychopharmacology, psychotherapy, somatoform disorder

## 1 | INTRODUCTION

Body Integrity Dysphoria (BID), as named in ICD-11, or Body Integrity Identity Disorder (BIID), causes a persistent and intense desire to become an amputee. The onset is usually in adolescence, and patients have an intense feeling of inappropriateness concerning their nonanatomically disabled limb. They may spend time acting like they are disabled, not using their limb, worrying about their desire to become amputee interfering with functioning in their occupational and social life.

We reported in 2024 the case of a 20-year-old male<sup>1</sup> presenting with the desire to have his left fourth and fifth

fingers amputated. The procedure was conducted after a thorough evaluation of the potential risks and benefits, assessing the patient's diagnosis and decision-making capacity. It was undertaken following the patient's persistent desire for treatment, despite prior attempt at psychotherapy and pharmacotherapy proving ineffective in alleviating the condition.

### 1.1 | One year follow-up

Immediately after the procedure, the patient's nightmares ceased, postoperative pain disappeared within 1 week,

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and his mood and energy significantly improved. These benefits were sustained during the year after the procedure. At the one-year follow-up, at 22 years old, he continued to lead a stable and satisfying life at work, in leisure, and in his romantic, friends and familial relationships. He received promotions and praise from his employer, highlighting his exemplary good performance as a manual worker. The amputation did not diminish his proficiency in manual tasks. He perceived an enhancement in the functionality of his hand. He experienced no residual pain and harbored no regrets about the procedure. He was fully aware that people may not understand his condition, and he did not care about it. He felt he was living as a normal entire human being, not using his amputation for attention but not hiding his hand anymore, as the three-digit hand was part of his normal identity. He adapted very well, driving his motorcycle, planning his future, and enjoying his life. His family members noted the positive change in his life, telling him he looked good, and even younger now that he was relieved from his BID. He slept 8 hours a night, getting adequate rest. He acknowledged the careful consideration from the medical team in proceeding with his request and expressed gratitude. If he could change something, it would be to have known about his condition earlier so he could have sought help sooner.

## 2 | METHODS

The patient was initially referred by his family physician to a general psychiatry service for an opinion regarding his desire to become an amputee and his high distress, which led him to contemplate proceeding independently if he could not get help. He cooperated in all evaluation processes which are described in Nadeau,<sup>1</sup> hoping to alleviate his condition without further trauma. He was deemed capable of deciding, tried first medication and psychotherapy with an open mind but experienced no significant improvement over 7 months as an attempt to help him with less invasive method. He was then referred to orthopedic surgery and underwent amputation a little over a year after the initial psychiatric consultation.

### 2.1 | Outcome & follow-up

He was not seen in psychiatry after the first one-month postoperative follow-up, as he did not require any therapy or medication. He underwent a minor skin procedure correction on his hand during the year, as the initial approach was as conservative as possible to ensure proper wound healing. At the one-year postoperative follow-up, the patient was leading a successful and happy life, no longer

dwelling on his fingers. He was discharged from psychiatric follow-up as he no longer required further care.

At the mental state examination, he was punctual for his appointment, wearing age- and job-appropriate attire, with adequate hygiene. He exuded calm and well-being, displaying a composed and smiling demeanor. His thoughts were well-organized, nuanced, enabling him to discuss his experiences, overall functioning improvements, absence of regret, and gratitude. While interested in the progress of knowledge about his illness, he wished to remain discreet, choosing whom he shared detailed experiences with. He was proud of himself, not concealing his amputated limb, with a normal posture and age-appropriate interests, although his speech and emotional maturity resembled that of an older individual.

## 3 | DISCUSSION

Apotemnophilia, described by Money in 1977,<sup>2</sup> entails intrusive and intense thoughts related to a desire to amputate a healthy body part, such as an arm or leg. Surgery has been considered effective for treating BID, with high satisfaction rates in reported cases.<sup>3–5</sup> Patients with BID aren't delusional. They recognize the limb as theirs, but feel it doesn't align with their body schema or identity since early developmental stage.<sup>3,5–8</sup> There is evidence of gray matter atrophy correlating with compensatory behaviors in the literature<sup>3,9</sup> along with clear delineation of dysphoria-causing regions<sup>8</sup> and reduced skin conductance responses under the desired amputation site.<sup>9,10</sup>

Delaying or not offering treatment, in this case surgery, can be harmful, including the risks of death due to self-harm attempts at self-amputation. In this instance, the benefits we hoped for were achieved and maintained at follow-up. The patient did not express a desire to alter or amputate any other limb or body part. The concept of health can be defined based on the normal biological functioning of the species or on an individual's capacity to adapt to their circumstances.<sup>11</sup> With the advent of the Internet and increasing access to information, it is crucial to demystify this condition and prevent patients from seeking help outside the medical field, which can be detrimental.<sup>6</sup> Additionally, it is imperative to identify treatment modalities that produce minimal anatomical and functional alterations.<sup>3</sup>

The biomedical model of impairment or disability may imply that amputation signifies dysfunction. Health professionals have to distinguish between acute harm and chronic suffering regarding the potentially therapeutic act of surgical amputation. Some individuals with atypical body constitutions may not be disadvantaged and may be in good health, whereas those undergoing amputation

for BID may cease to be disadvantaged.<sup>11</sup> The diversity of anatomical structures and physiological possibilities does not necessarily imply impaired biological functioning when there is a deviation from statistical norms.<sup>11</sup> Health also encompasses the capacity to establish new norms and adapt to life's contingencies, such as viruses, reduced mobility, or overexposure. Pathology occurs when an individual's adaptive capacities are surpassed, exceeding those of other members of the species.<sup>11</sup> Disease can also be viewed in relation to the individual and their previous abilities. A dysfunctional or pathological state requires remediation through environmental adaptation or restoration of the individual's health, either by bringing them within statistical norms or enabling them to fulfill their functions; otherwise, it results in disability.<sup>11</sup> One can be statistically common and yet be ill, disabled, and still be in good health, or be outside the norm without any dysfunction.<sup>11</sup> When an individual has the capacity to establish new norms for themselves that allow them to function better after amputation, as the suffering related to their identity and body image is alleviated through the operation, the surgical procedure aligns with the purpose of medical practice to place the individual in a healthy state that enables them to fully adapt to their normal life. Resisting changes in environment or physicality could be counterproductive to promoting life and health.

For patients with BID reported in the literature, alleviating their suffering justifies the cost of amputation, which is not inherently harmful, or destined to create a disability.<sup>11</sup> The acute risks of thrombosis, paralysis, and even death, as well as long-term disabilities associated with amputation, are real. However, if the potential benefit outweighs the risk, the overall net gain on the patient's condition makes the surgery and certain necessary bodily damage worthwhile. A parallel can be drawn with cosmetic surgery, where individuals with healthy bodies seek to mold it toward an ideal influenced by irrational pressures from advertising, gender, and societal standards.

An alternative model to the medical model of dysfunction is the social model. This model focuses on environmental factors, social and cultural pressures, discriminatory prejudices, economic influences, and physical barriers. It examines systemic reasons for the social exclusion of individuals with impairments to eliminate barriers of injustice. Cognitive, emotional, physical, or functional impairments are not viewed as biological deficits of the individual, but rather as a result of how their environment can or can't accommodate their atypical needs, such as losing a limb through amputation. In this model, society would make adaptations to accommodate all bodily constructions, providing equal access to opportunities without discrimination, similar to accepting individuals with different hair or eye colors.<sup>12</sup>

The change requested by individuals with BID is carried out with their informed consent, as they are deemed capable of making decisions, and they are likely to experience enhanced well-being following surgery, although there may be certain selection biases present in the literature. The surgical intervention may effectively relieve their suffering, particularly when the patient has already envisioned a lifestyle that aligns with the desired physical appearance. This transition is expected to be smoother compared to a traumatic, unplanned, and sudden amputation.<sup>12</sup> The balance aimed at minimizing risks for individuals with BID and respecting their autonomy is a crucial aspect of clinical decision-making. The capacity of these patients is sometimes called into question. Once the amputation is performed, patients with BID are less likely to seek additional surgeries compared to competent patients who request cosmetic procedures.<sup>4</sup> They do not desire attention, profit, or medical intervention; rather, their goal is to feel complete and at ease in their bodies.<sup>13</sup> Only half of the cases would discuss their unusual thoughts with their loved ones, and the expression and management of distress may vary depending on cultural factors.<sup>13</sup> They may fear being involuntarily hospitalized and being misunderstood by their therapist.<sup>6</sup>

Obtaining more evidence about high satisfaction rates and improved quality of life, as demonstrated in this case, could prompt many patients and physicians to consider earlier curative amputation. This would involve factoring in the costs of living with depression and dysfunction associated with BID, as well as considering less invasive supportive treatments like pharmacotherapy and psychotherapy and their potential outcome.<sup>3,5,7,14</sup> Throughout this journey, it is essential to have additional guidelines for selecting cases with favorable prognoses and strive to avoid any deviations.

## 4 | CONCLUSION

This case<sup>1</sup> documents the evolution of a patient after digits amputation for BIID. Now, with the one-year follow-up, we gather further evidence of the sustained benefits of surgical treatment for carefully selected cases. The profound implications of this case extend beyond the realm of medicine, emphasizing the critical importance of inclusive healthcare. It also prompts a reevaluation our concept of health through various models. It underscores the necessity for healthcare providers to listen to and learn from the experiences of patients, paving the way for compassionate and effective treatment strategies. Inclusive medicine isn't just a concept; it is a fundamental ethos that challenges us to embrace diversity, prioritize patient well-being, and continuously strive for enhanced understanding and care.

## AUTHOR CONTRIBUTIONS

**Nadia Nadeau:** Conceptualization; data curation; formal analysis; funding acquisition; investigation; methodology; project administration; resources; software; supervision; validation; visualization; writing – original draft; writing – review and editing.

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## CONFLICT OF INTEREST STATEMENT

Dre Nadia Nadeau reports no financial relationship with commercial interests.

## DATA AVAILABILITY STATEMENT

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

## ETHICS STATEMENT

This case report adheres to ethical principles outlined in the Declaration of Helsinki. All procedures performed involving the patient were conducted in accordance with ethical standards and with the patient's informed consent.

## CONSENT

I, Nadia Nadeau, hereby confirm that I have obtained written informed consent from the patient involved in this case report for the publication of their clinical information in a manuscript. The patient has been thoroughly briefed on the purpose, nature, and potential risks of publication. Additionally, the patient was informed that efforts would be made to ensure anonymity. However, due to the distinctive nature of the case, there is a possibility that individuals familiar with the patient could identify him. To safeguard privacy, identifiable details have been appropriately anonymized. The consent form is available upon request.

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