

# Ethical dilemmas related to surgical management of body integrity identity disorder

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## Introduction

Body integrity identity disorder (BIID) is a rare condition in which an individual intensely desires the amputation or paralysis of one (or more) of their otherwise normal limbs. There is limited literature describing the ethical challenges and complexities in obtaining consent following self-amputation when replantation is a clinically viable option. This poses a question for the surgical team in the acute setting: in a non-psychotic, non-delusional and well-informed individual presenting with amputation, what is the ethically correct treatment decision?

**Keywords:** amputation, informed consent, ethics, mental health

## Case

A 30-year-old, right-hand-dominant transgender woman was brought to the emergency department following self-inflicted amputation of her right hand with a power saw. Initial assessment revealed complete guillotine amputation of the hand at the mid-carpal joint. The amputated hand was deemed suitable for urgent replantation.

Further assessment of the patient revealed that this amputation had been premeditated over the preceding three months. The patient had purchased a tarpaulin to prevent blood spillage, a tourniquet and a bucket for ice to ‘anaesthetise’ the hand. There was no associated illicit drug use, no recent changes in medication and no recent stressors, and her mood had been stable over the past six to nine months. Despite the patient understanding the significant functional impairment without replantation, she did not wish for re-attachment but was accepting of other treatment. Following

a discussion between the psychiatric team, the surgical team and the hospital CEO, the patient was placed under the *Mental Health Act (2007) NSW* and deemed incompetent. The Office of the Public Advocate was contacted to obtain proxy consent for 'urgent medical treatment'. Four hours of warm ischaemia time had lapsed by the time consent was obtained for replantation.

After six hours of operative time, the amputated hand was successfully replanted. On postoperative day three, the replanted hand showed signs of venous congestion requiring return to theatre. By this time further psychiatric review and a second opinion by the psychiatric team indicated that the patient had sufficient insight into her condition and the consequences of her actions, with a diagnosis of BIID as a reason for her actions. The assessment order was revoked and the patient made voluntary. As per the patient's preferences, no further attempts were made to salvage the compromised replant and her right hand was terminalised on postoperative day six. The patient made a good recovery and was discharged the following week.

## Discussion

As illustrated by this case, conflict may arise between prevailing medical paradigms and patient wishes. With such conflict, the decision-making capacity of the patient should be scrutinised and weighed against the time-critical nature of replantation as well as the potential for lasting disability. In time-sensitive situations, decisive action is necessary.

Given the lack of consensus with regards to its aetiology, BIID is not well understood.<sup>1,2</sup> A number of aetiologies have been proposed ranging from neurological<sup>3,4</sup> to psychological causes<sup>1</sup> with a resultant failure of integrating the affected limb into the body schema. Consequently, formal diagnostic criteria have not been established and identification of this condition can be challenging. While BIID is not currently listed in the DSM-5 as an official disorder, First and Fisher have proposed a set of diagnostic criteria that highlight key features of this condition.<sup>5</sup> These include an early-onset intense and persistent desire to acquire a disability, discomfort with one's current body configuration

and with this discomfort, a desire resulting in either an overbearing preoccupation that affects normal functioning and/or actual attempts to become disabled. Importantly, BIID must be identified as distinct from any other psychotic processes, neurological conditions or mental disorders.<sup>5</sup> In doing so, we afford the patient an opportunity for formal assessment of competency. While a decision regarding capacity is determined by the psychiatric team, a simple assessment by the treating team may involve ensuring that the patient understands their current situation, can comprehend the likely ramifications of proposed treatment options and can consequently weigh the benefits and risks of this information to make an informed decision.<sup>6</sup>

The literature on treatment of BIID is limited, with minimal treatment efficacy demonstrated with the use of psychotherapies or pharmacotherapies.<sup>7</sup> Of these, only a trial of fluoxetine in a single patient demonstrated a minor reduction in symptoms.<sup>8</sup> Anecdotally, realisation of the patient's desires as a means of therapy, either as an elective procedure or self-inflicted, is the only effective treatment.<sup>9</sup>

Given the uncertainty that surrounds BIID as a construct, as well as the potential for confounding diagnoses, the decision to undertake a formal psychiatric evaluation is the most ideal course of action. However, the time pressures of warm ischaemia time and the implications for delaying surgery may lead to a less-than-ideal operative outcome.<sup>10</sup> The treating surgeon must always aim to minimise unnecessary harm to the patient. The assessment of the patient as having capacity on the day following surgery calls into question the ethics of performing an initial replantation in this patient, but the consensus between the psychiatric and surgical teams in this case was that the immediacy of irreversible disability should surgery not be performed overrode the possibility of longitudinal psychiatric assessment.

To prevent unnecessary harm to the patient and to expedite operative intervention, guidelines for surgeons in the acute management of such cases should be developed. The following are some suggestions for the management of such presentations:

- > Immediate involvement of the psychiatric team should be a priority, in order to undertake formal assessment and discuss treatment options.
- > The presence of an advanced statement should be clarified to assist in guiding treatment.
- > In situations where the individual's decisions are being overridden beyond the scope of common practice, involvement of the hospital executive and ethical committees as well as legal counsel should be sought.
- > Ongoing assessment of the patient's mental state beyond the initial presentation is important in guiding treatment where intervention is longitudinal.
- > In addition to the above, an 'enhanced treatment plan' has been developed for this patient in case she re-presents in a similar fashion.

## Conclusion

Treatment of acute amputation in BIID is complex and not well-described in the literature. Close involvement between the surgical and psychiatric teams is essential to optimise patient outcomes. The above principles are suggested guidelines in the approach to such a cases but early identification of patients with a diagnosis of BIID is key in the management of these scenarios.

## Disclosure

The authors have no financial or commercial conflicts of interest to disclose.

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