

The Patient Requesting Amputation

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ABSTRACT

Although infrequent, there are patients who present themselves to surgeons and ask that a limb be amputated. Generally, such patients fall into one of three categories. The first is those suffering from “Body Integrity Identity Disorder” (BIID), a condition in which individuals feel that one of their limbs is foreign to the rest of their body, and must be removed. The second category is Apotemnophilia, a fetishized desire to become an amputee to enhance sexual gratification. Such drive for sexual gratification may lead to requests for amputation. Finally, the third category is delusional beliefs secondary to severe mental illness that may compel an individual to seek amputation, or even attempt self-amputation. We present a fourth type of patient: the Global War on Terrorism veteran with a severely injured arm demanding amputation to fit in with others who use prosthetic devices. In this instance, the cause of injury was a motor vehicle collision. We speculate that our case is not the only one and that a fourth category of patient demanding amputation is emerging. Further study is needed.

Keywords: Amputation; Decision Making Capacity; Body Integrity Identity Disorder; Apotemnophilia; Somatoparaphrenia

1. Introduction

A premium is placed on patient autonomy in modern medicine, with providers encouraged to find a balance between patient choice and physician power [1]. Typically, the procedure is explained to the individual and together the patient and provider decide on a treatment course. In some instances, the patient and provider may have vastly different ideas of what the treatment should entail. For example, some patients may refuse lifesaving treatment. In other instances, a patient may insist on a treatment that the provider is reluctant to perform. When great differences between the patient’s choice and physician recommendation emerge, such conflict can trigger specialist consultation by a psychologist (or psychiatrist) asking for an evaluation of the patient’s decision making capacity [2]. It was through a request for medical decision making capacity that we became involved in this case.

A 28-year-old male was the unrestrained passenger of a single vehicle rollover collision in a rural area of the western United States. He was partially ejected from the

vehicle and his non-dominant arm became trapped between its roof and the ground. Hydraulic extrication was required and the patient was flown to our facility, a Level I trauma center. Other than relatively minor lacerations and contusions to the rest of his body, the patient’s injuries were generally confined to his non-dominant arm: a degloving injury to the hand and distal arm; multiple complex fractures involving the humerus, radius and ulna; and significant soft tissue injury with irreparable nerve damage. Despite these significant injuries, the orthopedic service was confident that this extremity could be salvaged, with some intact sensation in the fingers and the ability to open and close his hand. The patient was told, however, to expect significant disability with this arm, including frozen joints. The inability for the patient to have an articulating arm was reportedly unacceptable to him. The patient demanded that the limb be amputated and refused surgery or any other intervention that was not directly tied to removal of this arm. A psychologist was called to assess his decision making capacity.

Patients demanding amputation are not unheard of in the literature and generally three major areas are described. Michael First coined the term “Body Integrity

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Identity Disorder" (BIID) in 2004 to describe individuals who experience a dissonance between their actual body state and their perceived body schema [3]. This is a paradoxical perception that in order to feel complete, the individual desires to have a body part removed, usually part of a limb [4,5]. It is a tension arising from having a body part that is perceived as foreign that drives a fixation to have the offending limb removed [6,7]. For some individuals, this fixation becomes quite extreme, including presenting themselves to surgeons requesting an amputation [8]. A parallel literature in bioethics is growing regarding whether surgeons should honor this request [9-12], with the concern that the patient may self-amputate if turned away. Indeed there are reports of surgeons amputating healthy limbs at the request of their patients [13].

Interestingly, there is a growing literature suggesting that BIID is closely related to the neurological condition somatoparaphrenia, occasionally occurring after right parietal lobe insult [14]. In such cases, individuals develop an aversion to their own limb. This has led some researchers to suggest that BIID may arise from right parietal lobe dysfunction [15], while others suppose fronto-parietal involvement [16]. McGeoch and his colleagues argue cogently that BIID patients may be better characterized as having a right parietal lobe syndrome and have introduced the term "Xenomelia" to best describe this condition [17]. McGeoch *et al.* also believe that Xenomelia can account for Apotemnophilia, a second major reason that some patients may demand amputation [17].

Apotemnophilia is a condition whose name was coined in 1977 by Money *et al.* to describe the fetishism of becoming an amputee [18]. These individuals present as having an erotic association with losing a limb and whose drive for sexual gratification in this area is sufficient to seek amputation, perhaps by intentionally injuring themselves in hope it will result in surgical removal of a leg or arm [19]. Often, these individuals also report a strong sexual attraction to amputees [20]. There are, however, relatively fewer published case reports regarding a purely erotic motivation in seeking amputation, consistent with First's findings that only 15% of his sample of 52 subjects desiring amputation identified feeling sexually excited or aroused as their reason for wanting to lose a limb.

Finally, severe, untreated mental illness may account for a patient demanding amputation. In some cases, need for amputation is so profound, some individuals may act on the impulse and self-amputate. There is a rich literature of psychotic individuals who have cut off limbs, genitals and performed self-enucleation. Large *et al.* suggest that this concerning behavior may be associated with the first psychotic break associated with schizo-

phrenia [21]. There tend to be more reports of psychotic behavior resulting in autocastration/self-amputation of the penis [22-31] and in self-amputation of upper extremities [27,32-37] than of the lower extremities [5] or other body parts, such as the left breast [38], both breasts [39], and ears [40,41]. If self-enucleation [42-44] is also considered, the frequency of this phenomenon is reported more frequently than hands, ears, or breasts. We had previously treated an individual who had a delusion of being able to rid the world of war if his hand was amputated. After his request of a surgeon to perform this procedure was rebuffed, he attempted to grind his hand off in a garbage disposal.

It was with this framework that we conducted an evaluation of the 28-year-old male with a severe arm injury. He reported being an active duty member of the United States Marine Corps. He stated that his job in the Marines was to be a "door kicker," and had recently been promoted to E-6 (Staff Sergeant). He reported a tremendous amount of pride being a leader in his unit. He enlisted at age 18 and planned "to make a career in the military." He denied a previous history of mental illness, stating he had never been under the care of a mental health professional. He reported serving three deployed tours of duty in the Global War on Terrorism. The patient denied severe symptoms of PTSD, but did endorse some intermittent irritability and insomnia while being deployed. While not meeting full criteria for Alcohol Use Disorder, he did endorse some symptoms of problem drinking. He was under the influence of alcohol at the time of his injury.

When asked about his decision to simply choose amputation and forego other treatments, the patient stated that his military career was over. He said that he did not want to face his "brothers-in-arms" with an injury that he was largely responsible for. He reported that he did not want to have to tell people how his debilitating injury was not "earned in combat," but was because he was not wearing a seat belt. The patient said he was well aware of the developments in prosthetic devices and would be proud to be like other veterans with missing limbs.

We cautioned the patient about making life changing decisions during an acute surgical emergency and urged him to learn more about the process and consequences of having a prosthetic arm, including phantom pain and rehabilitation requirements. We ultimately deemed him as having intact decision making capacity regarding the care of his injured arm, but also reminded the primary team that they were not obligated to perform a procedure simply because the patient desired it. He was ultimately transferred into the VA medical system and was lost to follow up.

It is likely that this is not the only case of a member of the military making such a request after a career ending

injury. It may be that a fourth category of patients demanding amputation is developing with injuries sustained on the battlefield. Further investigation is necessary.

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