

CASE STUDY

Cosmetic limb lengthening in a patient of normal stature: ethical considerations

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Abstract

Recently, a 23-year-old male patient underwent cosmetic limb lengthening, despite the fact that his height was that of the average Indian male (5 feet 7 inches). The patient's parents and the media criticised the orthopaedic surgeon who had performed the surgery for undertaking an unethical operation. This paper discusses the relevant clinical evidence, ethical aspects and ethical theories surrounding the case. We conclude that the surgeon's decision to perform the surgery seems to be fair and appropriate from the ethical and clinical perspectives.

Introduction

The Ilizarov external device is usually used to lengthen a bone that is shortened due to bone loss secondary to trauma, infection, non-union of bone or congenital conditions giving rise to short bones. Recently, there was news regarding a limb lengthening surgery that was performed by a team of orthopaedic surgeons at a reputed hospital in Hyderabad (1). The procedure was controversial because it was performed on a young man whose height was 5 feet 7 inches (approximately 170.2 cm), which is considered above average for an Indian male. This case has given rise to a nationwide debate, especially among the medical fraternity, on whether this procedure was performed ethically or otherwise. The view of the newspaper itself is that the patient's parents should have been consulted as the patient was only 23 years old.

Current clinical evidence

One paper (2) described the results of cosmetic limb lengthening among persons of normal height, while two papers (3,4) described the results in a cohort consisting of subjects both of short and normal stature. The mean height of the patients in the first paper was 170 cm. The upper limit of the range of the height of the operated patients in all papers was 174–176 cm (2–4). The total number of patients who underwent cosmetic leg lengthening was 215 (2–4). The mean age of the patients ranged from 25 to 27 years (2–4). The ring

fixator type device was used for complete leg lengthening in two of the studies (3,4), while the Ilizarov device was replaced by the intramedullary nail in all subjects in one study (2). The mean height gained by lengthening of the leg ranged from 6.9 cm to 7.6 cm. The outcome reported was excellent to good in 95%–100% patients (3, 4). Ninety-four percent to 99.2% of patients were satisfied with the final outcome of the procedure (2–4). Ninety-six percent to 99.2% of patients were willing to undergo surgical leg lengthening again, despite the problems and obstacles involved, and were willing to recommend the intervention to other patients who had a subjective feeling that they were short (3,4). The incidence of re-surgery after the index procedure ranged from 12.5% to 28% (2–4). As the results of leg lengthening using the Ilizarov device have been described in the case of individuals of normal and short stature, this surgical procedure cannot be dubbed an "unusual experimental surgery".

Principles of ethics

"Bio-ethics" refers to written and unwritten rules that medical professionals are expected to follow in accordance with professional standards considered appropriate by their peers in the same profession. Ethics is an integral part of the surgeon's career, and every decision that surgeons make should take into account the clinical factors, non-clinical factors, ethical factors and rules laid out in the code of conduct published by the Medical Council of India. The four principles of ethics are respect for the autonomy of the patient, beneficence, non-maleficence and justice (5).

Respect for autonomy implies giving due consideration to the patient's decision. As mature adults, patients can make their own decisions without being put under pressure by the doctor. Informed consent is obtained from patients after the risks and benefits of the procedures they are advised undergo have been explained to them completely. Choices, if available, are also explained to the patient, who then makes the choice. In a skeletally mature adult, the non-operative choice would be to have a shoe raise fitted. Doctors must take the wishes of the patient seriously. If the patient requests the doctor not to inform their parents about their condition and the plan of treatment, the doctor must respect the patient's confidentiality and is bound not to disclose these, unless this would cause a serious health problem for the public in general. Thus, if a patient of normal stature requests a height gain surgery, the doctor cannot ethically deny this. Denying the request would mean violating the patient's right to autonomy.

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Beneficence means acting in the patient's best interest. The doctor should be able to benefit the patient through a surgical intervention. The surgical procedure should be shown to have benefited other patients who have undergone it. Clinical studies have shown that cosmetic limb lengthening surgery not only increases the height of all patients (2–4), but also improves the person's self-esteem (3). Denying height gain surgery to a patient who has reasonable justification for opting for the procedure would mean violating the principle of beneficence.

Non-maleficence means refraining from doing any harm to the patient. All surgical procedures are associated with some complications; however, the benefit of the intervention must be greater than the risk involved. The surgeon should not cause any harm to the patient intentionally or unintentionally. There should not be any malafide intentions in undertaking the surgical procedure. The incidence of complications of limb lengthening surgery has been reported to range from 37% to 72% (3, 4). However, most of these problems are related to soft tissue and bony parts and are of a relatively mild nature, not causing any permanent disability or handicap (3).

Justice involves the fair and appropriate allocation of resources, depending on the need. Justice also means taking a decision that would benefit not only the patient, but society as well (5). According to the principle of justice, the surgeon must exercise restraint as far as the type of surgical procedures to be performed is concerned, depending on the resources allotted. In the private healthcare system, patients pay for healthcare and hence, are in a position to choose the type of surgical procedure they wish to undergo. At present, there are no laws stating that cosmetic limb lengthening should not be undertaken in the country.

Hence, the decision to perform a surgery for height gain in patients who subjectively feel that they are of short stature is in accordance with the four basic principles of ethics. It can be argued that denying this surgery to a patient who requests it for a valid and reasonable cause would violate all four principles.

Ethical theories

When one encounters a complex ethical question, it is advisable to evaluate the question using different ethical theories (5, 6).

The utilitarian doctrine states that an act is justified only when it maximises the "happiness" of the entire society (6). Irrespective of whether one is rich or poor, of short stature or normal stature, everybody is given equal importance. As per the utilitarian outlook, there is only one right act in a given situation (6). An act is right or wrong depending on the ultimate consequence. The final outcome is given more importance than the means to reach the outcome. If patients achieve the height they wanted to achieve, then they are likely to be satisfied with the outcome. If the patient is satisfied, the act of intervening surgically to lengthen the limb would be

right. One is likely to obtain an answer to whether the surgical intervention has been satisfactory at the end of one year to 18 months after the intervention, and the final verdict will be delivered by the patients themselves.

Duty-based moral theories state that an act is justified and appropriate only if it is in accordance with moral values, against the background of rationality (6). As per this theory, there might be more than one act that is right in a given situation. Here, the nature of the act is more decisive than the final consequence. A shoe raise is a non-operative option for gaining height, but it entails wearing a shoe at all times. If this option has been discussed with the patient and they want a permanent solution instead of a temporary one, the only remaining option for a skeletally mature individual is surgical limb lengthening. Thus, offering surgical limb lengthening to a patient who does not want to opt for a shoe raise or is unsatisfied with a shoe raise is a reasonable option.

Virtue ethics states that an act is right if a virtuous person would act similarly in a similar situation (6).

Consent for surgical intervention

As per Indian law, mature adults above 18 years of age can make independent decisions regarding the surgical procedures they wish to undergo and obtaining their parents' consent is not mandatory. The consent of the parents or legal guardian is required for patients below 18 years of age. As for mature adult patients, it is up to them to tell their families, relatives or friends about any surgical procedure they wish to undergo. Maintaining the patient's confidentiality is of the utmost importance. If the doctor has any doubts about the psychiatric health of the patient or if the patient is known to suffer from any psychiatric condition, they might not be fit to take an informed decision. The doctor can advise the patient to bring their family members for a clinical interview, but the patient has the final say as to whether the family members should be involved in the decision-making process. Documenting this in the clinical notes could save the doctor from an embarrassing situation in the future. The importance of contemporaneous documentation cannot be overemphasised. A consent form that is signed by the patient and clearly mentions the benefits, possible problems and complications of the procedure is important and valid.

It is important to know the reasons that the patient gave for wishing to undergo limb lengthening surgery despite being 5 feet 7 inches tall. Was there any peer pressure? Was a greater height required for participation in specific sporting activities? Was it an occupational requirement? Was the patient short compared to other men in his community? It is equally important to know the final height that the patient wanted to achieve. Was the aim to achieve the particular height reasonable or beyond reasonable limits? If the patient had unreasonable expectations, preoperative counselling could possibly have been of some use. As per the newspaper report, the wish to increase one's height by 3 inches (7.6 cm) is reasonable and in accordance with results on height gain

published previously.

Suggestions for the future

Patients should be assessed by a psychologist to ensure that their perceived short stature is affecting them psychologically. The perceived short stature must be severe enough to affect the person's mood most of the time. This condition is called height dysphoria. Detailed preoperative psychological analysis helps to rule out dysmorphophobia or any other psychiatric illness which might affect the patient's ability to make a sensible judgment and give legally valid consent. Psychological evaluation by a psychologist was performed as a part of the preoperative evaluation in all three studies (2–4). This was done to rule out psychological disorders such as dysmorphophobia, in which patients perceive of their body as being completely out of shape and undergo various surgical interventions to correct their body form. In severe cases, they become suicidal and may need to be admitted to hospital several times. It is important to note that in one study, the psychologist recommended height gain surgery only in 52 (50%) out of 104 patients (4). In the case under discussion, it is unclear whether the subject underwent detailed psychological evaluation. Psychological evaluation helps to understand why the patient wants to undergo cosmetic height gain surgery. Considering that previously published studies had utilised psychological evaluation, it is advisable to specify psychological evaluation in such surgeries in India. The possible reasons include occupational (some jobs require a person to have a minimum height), social (other men of the same community could be taller than the subject; peer pressure; perceived problems regarding one's height in one's relationship with one's partner); and inability to participate in certain sports due to one's relatively short stature. There could also be other genuine reasons for leg lengthening and it is up to the treating surgeon to consider whether the reason given is valid.

If the patient specifically tells the doctor that his/her family must not be informed, this must be clearly documented in the case notes and if possible, the patient should be requested to sign a special consent form. This might save the surgeon from embarrassing questions from the family. Family involvement was specifically mentioned in only one study (3).

It is better to have several clinical encounters with the patient rather than making a decision based on the first clinical interview. This helps to evaluate whether the patient's intention to undergo leg lengthening is sincere. We propose that for such procedures, informed consent be videotaped and saved to spare the clinical team from future embarrassment and legal complications. Applying the rigor of funded clinical trials to uncommon elective and planned surgeries with legal implications might be a worthwhile idea.

It has also been suggested that interviews be arranged with patients who have undergone the leg lengthening procedure (2, 4). If possible, interviews should be arranged between a prospective patient and a person undergoing leg lengthening surgery, as well as a person who has already undergone the

surgery. This would enable prospective patients to see for themselves the challenges faced by those undergoing the treatment, and would help to reassure them with respect to the final outcome.

Ethical dilemmas

It is important to appreciate the differences in the outlooks of different societies. Western countries are individualistic, whereas Indian society continues to have a collective outlook and is somewhat paternalistic as well. The newspaper article mentions that as a mature adult, the patient made the decision himself, but his father raised objections because he was not involved in the decision-making process. The patient seems to have worked in an IT company and probably earned a high salary. He was used to his freedom and probably wanted to take decisions independently. He did not feel the need to inform his parents about his decision. This patient's outlook could be symptomatic of India's changing society. It is pertinent to ask whether it is ethically appropriate for newspapers and journals to take a stand against the patient and the orthopaedic surgeon. Is the reporter violating ethics by questioning the ethics of the medical professional? By publishing the report and naming the individual patient, has the reporter not breached the patient's confidentiality? Did the patient give his consent for the publication of his name in the newspaper article? Moreover, ethics cannot be isolated from culture and society. The ethical theories and points that have been used to support the doctor's view have essentially been developed and propagated in western countries, which have a different sociocultural milieu and are resource-rich. If we carried out a survey on this issue among the members of Indian civil society, they may not have agreed with us. Would this mean that it is unethical? Theirs would be a democratic view, not considered ethically right, and may be criticised globally. If we carried out the same survey globally, it is highly probable that the orthopaedic surgeon who performed the height gain procedure would be vindicated. In our opinion, unless the eastern countries develop their own theories of bioethics that are in line with their worldview, they will always struggle with such problematic cases which pose ethical challenges.

While this case may not provide the right platform to debate ethics on a larger scale, it underscores the fact that the application of bioethics theories developed in the West will give rise to dissatisfaction among us. The larger issue which is not understood is that we are imposing ethical guidelines developed in the West (and people who have been trained in the West) on researchers and clinicians in India. This applies to even the code of ethics of the Medical Council of India (MCI). Unless we develop our own theories of ethics, there will always be a schism between ethics as taught in textbooks and what is felt as being ethical.

The fact that this schism can exist in otherwise morally upright individuals indicates that we are not closer to the truth – the truth of what constitutes ethics in our milieu.

Conclusion

We acknowledge that our report is important as it is an independent review of the case and puts it under the ethical scanner, with the caveat that we do not have the full details of the case. Our report is based on the information published in the newspaper (1) and it is possible that the article may not have mentioned important details. The scientific evidence shows that cosmetic limb lengthening has excellent and good outcomes, even among patients whose height is normal and who have a subjective feeling of being short. Though some level of risk and complications are to be expected during the course of the treatment, the benefits seem to outweigh the risks as the problems do not seem to cause any permanent disability. The surgeon's decision to perform cosmetic limb lengthening may be supported by different ethical theories; however, refusing to perform the procedure seems to violate all ethical theories. A surgeon's decision to perform the surgery seems to be fair and appropriate from the ethical and clinical

perspectives. This is a good case for instructing medical professionals in ethics.

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