Limb-length discrepancy, to one degree or another, is a problem that must be reckoned with after total hip arthroplasty (THA). It must be addressed as both a clinical issue for patients and, unfortunately, a potential medicolegal problem. Although a small limb-length discrepancy may cause no symptoms or may not be perceived, a large limb-length discrepancy may cause nerve palsy, low back pain, altered gait, hip instability, and patient dissatisfaction. Importantly, limb-length discrepancy is believed to be the leading cause of malpractice claims after THA. Despite deliberate attempts to equalize leg lengths using meticulous preoperative planning and intraoperative guides, landmarks, and navigation, limb-length discrepancy of 1 cm or more is common. Most often there is only minimal influence on function, but larger discrepancies are associated with inferior functional outcomes and lower patient satisfaction rates.

In this issue of Orthopedics, Thakral et al describe a novel technique for correcting limb-length discrepancy after THA using distraction osteogenesis of the contralateral limb. Although this is an interesting study, it should be considered preliminary work, with its main limitation being its small sample. It is hoped that this will generate interest in this technique and additional, larger studies. It is encouraging that all patients were able to return to their activities of daily living and reported improved satisfaction once the limb-length discrepancy was corrected. In addition, Thakral et al provide a thorough discussion of all aspects of limb-length discrepancy along with a suggested treatment algorithm for surgeons performing THA.

Symptomatic limb-length discrepancy after THA is a challenging condition to treat. Nonsurgical measures such as physical therapy or shoe lifts can treat discrepancies of less than 1 cm. Correcting larger discrepancies, such as those greater than 2 cm, typically requires invasive surgical procedures. Options include revision THA, ipsilateral limb shortening, or contralateral THA. Each of these techniques has drawbacks, such as low patient compliance with using shoe lifts. A small lift can be placed inside the shoe, but larger ones must be on the outside and may be unsightly. Obviously, when shoes are removed, the limb-length discrepancy returns. Revision of the ipsilateral hip to correct limb-length discrepancy is not desirable in cases where there is no evidence of prosthetic dysfunction and the lack of substantial arthritis in the contralateral hip may rule out primary THA to gain length. Thakral et al provide an option for patients who may not want to wear shoe lifts, who have well-fixed ipsilateral prostheses, and who have no evidence of advanced arthritis in the contralateral hip.

Thakral et al correctly point out that not all patients may be candidates for their procedure to correct limb-length discrepancy after THA, and they offer a treatment algorithm for the problem. They propose a novel technique for the correction of limb-length discrepancy that has not been previously reported and are to be commended for their research and study.

REFERENCES


