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Assessment of hallux valgus reduction using a modified version of the McBride test

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ABSTRACT

Introduction: The McBride test was created to assess hallux valgus reduction and is also used to assess capsular and lateral soft-tissue tension indicating the need for lateral capsular release after the bone procedure in the first metatarsal bone. The flowcharts for lateral soft-tissue release remain unclear and lack consensus among surgeons.

Objective: To propose a modified version of the test for the complementary preoperative assessment of hallux valgus reduction.

Methods: We describe a method in which the examiner supinates the first metatarsal head medially to manually correct the pronation of the first metatarsal and then applies varus force to the hallux to test the lateral capsular tension of the metatarsophalangeal joint.

Results: A significant reduction in lateral capsular tension was observed in the metatarsal head lifting and rotating maneuver compared with the conventional McBride test.

Discussion: Hallux valgus reduction is greater with manual correction of the deformity than with the classic McBride test, most likely because of the resulting rotational bone repositioning and soft-tissue balancing. These changes seem to decrease the lateral tension that limits the correction of the deformity in the metatarsophalangeal angular plane.

Conclusion: We believe that this modified version of the McBride test can be used as a more reliable predictor of the need for lateral metatarsophalangeal release after the metatarsal position is corrected through osteotomy or cuneometatarsal arthrodesis.

Keywords: Hallux valgus; Surgery; Physical examination.

