

Modified Lapidus

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Clinical History

39-year-old female presented with a painful hallux valgus deformity. She had pain over the medial eminence. Range of motion of the great toe is smooth and supple without pain or crepitus. The great toe is tracking but is not trackbound. She has tried and failed wider shoes, NSAID's, over-the-counter orthotics, and icing. She does have pain on a daily basis that impacts her daily activities. A modified Lapidus bunionectomy was decided to be performed.

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Technology Platform

XCELLERATE[™] is opaque and thicker than other grafts. The Lyophilized graft is flexible and easy to handle. What you can't see is the benefit of our proprietary Lyophilization processing focused on preserving the quality of the matrix. The growth factor-rich matrix with an outer basement membrane immediately serves as a natural barrier and supports re-epithelialization.

Procedure

- The modified Lapidus bunionectomy is executed by utilizing a dorsomedial incision over the first tarsometatarsal joint(1st TMTJ) just medial to the extensor hallucis longus(EHL) tendon. The incision is deepened through the skin and subcutaneous tissue down to the capsule. A longitudinal capsular incision is made exposing the 1st TMTJ. The 1st TMTJ is then released with an osteotome. Next, a clamp is placed over the first and second metatarsals and the bunion is reduced while also rotating the first metatarsal with a k-wire to reduce the sesamoids. Next, an osteotomy guide is placed over the 1st TMTJ and a saw is utilized to resect the cartilage of the 1st TMTJ. The bone wedges are then removed from the 1st TMTJ. The resected joint surfaces of the 1st TMTJ are then drilled with good bleeding bone noted. A pin based compressor is then placed over the 1st TMTJ and the 1st TMTJ is then compressed and held in a corrected position. Next, bi-planar plates are placed dorsal then medial. No incision was needed over the first metatarsal phalangeal joint or lateral release as the deformity was all corrected at the 1st TMTJ.
- Next, half of the XCELLERATE 4x4cm is placed directly over the plate to help decrease adhesions under the EHL tendon (FIG 1).
- Next, the capsule is closed and half of the XCELLERATE 4x4cm is placed over the EHL tendon to help decrease adhesions and facilitate healing of the skin (FIG 2). The incision is then closed in layers.



Figure 1

Placement of XCELLERATE directly on the plate to help decrease adhesions under the extensor hallucis longus tendon.



Figure 2

Placement of XCELLERATE over the extensor hallucis longus tendon to help decrease adhesions and facilitate healing of the skin.



Outcome

- The patient is non weight bearing for 2 weeks in a cam boot.
- The patient is then transitioned to weight bearing in the cam boot for 4 weeks.
- At 6 weeks post op the patient is transitioned to weight bearing in a good supportive tennis shoe as long as x-rays confirm adequate healing.
- The patient had excellent correction of her bunion confirmed on x-rays (FIG 3).
- The incision healed nicely and is barely noticeable at her 6 month follow up (FIG 4 and FIG 5).
- The patient has returned to all activities pain free and recently had her other bunion corrected as well.

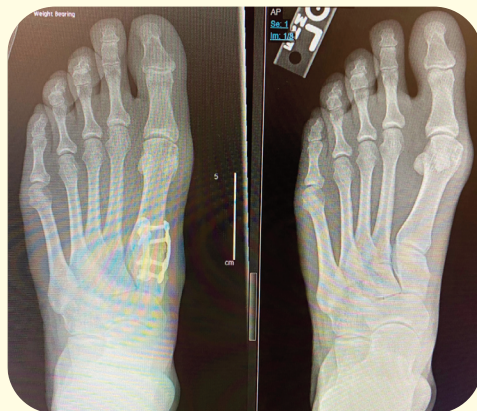


Figure 3

Left x-ray shows excellent reduction of the bunion deformity compared to the right x-ray pre op.



Figure 4

Well healed dorsal medial incision with correction of the bunion deformity.



Figure 5

Well healed dorsal medial incision with correction of the bunion deformity.

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