Small Incision 5th MT Shaft Osteotomy Combined with 1st MT Osteotomy for Hallux Valgus with Splayed Forefoot

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My disclosure is in the Final AOFAS Program Book. I have no potential conflicts with this presentation.
Bunionette Deformity

- Hypertrophy of the soft tissue overlying 5th MTP joint
- Congenitally wide or dumbbell shaped 5th MT head
- Lateral deviation of 5th MT head

Bunionette can be associated with

- HV with abnormal pronation of 5th MT
- Hindfoot varus (especially in RA)
- Flat foot

Hallux valgus deformity frequently associated with bunionette

Splay - Foot
Sometimes, patient complaints newly developed bunionette pain after correction of hallux valgus deformity.


To presenting the result of additional 5th MT shaft osteotomy (small incision Kramer) combined with HV correction as a treatment of splayfoot.
March 2009 ～ June 2011

22 feet (18 female patients)

Age: mean 50.6 (19～70)

Associated bunionette deformities

(Fallet type I: 11, II: 6, III: 3, IV: 2)
Clinical Evaluation

- Modified forefoot AOFAS scale (big toe + lesser toe)
- Subjective satisfaction: 5 grade
  1) Wearing shoe
  2) Gross feature
- Clinical healing time: weeks
  Not tender / Possible full WB

Radiologic Evaluation

- HVA
- IMA 1-2 & 4-5
- Forefoot width radio
  Forefoot width / midfoot width
- Radiologic union time: weeks

Hallux valgus correction
- Bunionectomy + soft tissue procedure
- Modified Mau osteotomy ± Akin

Bunionette correction
- small incision 5th MT shaft osteotomy
Clinical Results

- Modified forefoot AOFAS scale
  
  32.5 pre-op \rightarrow 92.5 post-op

- Subjective satisfaction score (1 to 5)
  
  Wearing shoe : mean 4.72 / Gross feature : mean 4.82

- Clinical healing time : mean 5.4 weeks
### RESULTS

#### Radiologic Results

1) **HVA (degrees)**

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<tr>
<th></th>
<th>Pre-op</th>
<th>Last FU</th>
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<tbody>
<tr>
<td></td>
<td>31.1</td>
<td>6.4</td>
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2) **IMA 1-2 & 4-5 (degrees)**

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<tr>
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<tbody>
<tr>
<td>1-2 IMA</td>
<td>17.2</td>
<td>4.2</td>
</tr>
<tr>
<td>4-5 IMA</td>
<td>11.9</td>
<td>3.4</td>
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3) **Forefoot / midfoot width ratio**

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<th></th>
<th>Pre-op</th>
<th>Last FU</th>
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<tbody>
<tr>
<td></td>
<td>1.77</td>
<td>1.51</td>
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4) **Radiologic union time**

<table>
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<tr>
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<th>Mean healing time (weeks)</th>
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<tbody>
<tr>
<td>1st MT</td>
<td>10.5</td>
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<tr>
<td>5th MT</td>
<td>16.5</td>
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*Paired t-test: p<0.05

*12.2 wks except 3 delayed union of 5th MTs
Adding small incision 5th MT shaft osteotomy (Kramer procedure) on the surgical treatment of hallux valgus deformity with splayfoot can lead to excellent clinical results and patients’ satisfaction.

It does not demand additional healing time besides that of 1st MT procedure (patients can walk on their feet even before the radiologic healing).

We may consider 5th MT osteotomy (Kramer) for hallux valgus deformity with splayfoot even in case without significant bunionette pain.


