87. Medial Thigh Lift

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ANATOMY

- The medial thigh has a relatively thin outer layer of epidermis and dermis.
- Beneath the dermis are two layers of fat separated by a relatively weak superficial fascial system.
- Deep to the subcutaneous fat lies the strong, thick **Colles' fascia.**[1-4]
  - Attaches to the ischiopubic rami of the bony pelvis, to Scarpa's fascia of the abdominal wall, and to the posterior border of the urogenital diaphragm
  - Has an especially strong area at the **junction of the perineum and the medial thigh**
  - Provides the **anatomic shelf** that defines the perineal thigh crease
  - Best found intraoperatively by dissecting at the origin of the adductor muscles on the ischiopubic ramus and retracting the skin and superficial fat of the vulva medially
  - Lies just at the deepest and most lateral aspect of the vulvar soft tissue[5]
- The **femoral triangle** lies lateral to the Colles' fascia dissection.
  - The surgeon must be aware of the femoral triangle and avoid entering it to prevent major vascular or nerve injury and to avoid disruption of the lymphatic channels.[5]

PATIENT EVALUATION

- Complete history and physical examination are taken.
- The skin quality and tone are assessed, along with the presence, location, and degree of skin ptosis.
- The presence or absence of extra subcutaneous fat is recorded both medially and laterally in the thighs.
  - Many women have concerns about fat collections in the trochanteric regions. These can be addressed with liposuction at the time of medial thigh lift.
  - The lower torso may require liposuction at the time of thigh lift as well.
- **Classification system:**
  - **Type I:** Lipodystrophy with no sign of skin laxity; best treated with **liposuction alone**
  - **Type II:** Lipodystrophy and skin laxity confined to the **upper third of the thigh;** treated with liposuction and a **horizontal skin excision** in the medial thigh crease
  - **Type III:** Lipodystrophy and moderate skin laxity that extends **beyond the upper one third of the thigh.** These patients require both liposuction and horizontal and vertical skin excision in the medial thigh.
  - **Type IV:** Moderate skin laxity that extends the **length of the thigh;** requires a **longer vertical resection** than type III.
  - **Type V:** Severe medial thigh skin laxity with lipodystrophy; requires a **staged procedure** with a first stage of aggressive liposuction followed by a second stage of excisional medial thigh lift.
    - ▸ These patients are often **massive-weight-loss patients.**

OPERATIVE TECHNIQUE

Classic Medial Thigh Lift With Transverse Skin Excision[5]

- **Preoperative markings**
  - Patient is marked standing with knees apart.
  - Areas of excess fat are marked for liposuction.
  - The femoral triangle is marked to help remind the surgeon intraoperatively to stay away from this region.
  - The proposed incision line is marked in the medial thigh crease beginning at the level of the coccyx posteriorly, traveling medially along the inner surface of the buttocks fold, and proceeding anteriorly to the level of the labia majora (female).
  - A pinch test determines the amount of excess skin that can be removed, and an elliptical excision is marked.
  - For patients with laxity extending beyond the upper third of the medial thigh skin, a vertical ellipse is added, creating a T-shaped final proposed incision.
- **Technique**
  - A combination of the prone and supine positions with "frog legging" is used.
  - The operation begins with the patient prone; liposuction is performed followed by excision of the posterior portion of skin and fat that was marked preoperatively.
    - Care is taken not to violate the underlying muscular fascia.
    - This wound is closed, including separate closure of the superficial fascial system, deep dermis, and subcuticular areas.
  - The patient is turned supine and placed in a frog-leg position.
  - The anterior portion of the incision is made with resection of skin and fat.
  - Colles' fascia is carefully identified near the origin of the adductor muscles on the ischiopubic ramus.
    - The skin and superficial fat of the vulva are retracted medially to aid in identification.

TIP: Carefully preserve the soft tissue that lies between the mons pubis and the femoral triangle to prevent lymphedema.

  - The superficial fascial system of the medial thigh skin is identified and anchored to Colles' fascia.
  - The deep dermal and subcuticular layers are closed after drain placement.

Modified Medial Thigh Lift in Massive-Weight-Loss Patients[5]

- Massive-weight-loss patients often have **severe horizontal skin laxity.**
- This operation focuses on primary correction of horizontal laxity using a **longitudinal medial thigh incision.**
- The transverse medial thigh crease incision is minimized and used primarily for the excision of standing cutaneous deformities (dog-ears).
- There is no need for anchoring to the Colles' fascia.
- **Preoperative markings**
  - The patient is marked standing with the legs apart.
  - The proposed line of closure is determined so that it lies medially in the thigh and is minimally visible.
  - A pinch test determines how much skin and fat can be removed anteriorly and posteriorly.
  - The anterior and posterior incisions are marked.

- **Technique**
  - Intraoperatively only the supine frog-leg position is used.
  - Liposuction is performed first.
  - The anterior incision is made with dissection down to the deep fat.
  - The skin and fat to be excised are elevated as dissection is made toward the proposed posterior incision.
  - The posterior incision is made, and the wedge of skin and fat are excised.
  - It is safest to perform this operation segmentally to ensure that the wound closes with appropriate tension in each area and to minimize intraoperative edema preventing closure of the wounds.
  - Jackson-Pratt drains are placed.
  - The wounds are closed by approximating the superficial fascial system followed by the deep dermal and subcuticular layers.
  - A compression garment is placed.

Fascio-Fascial Suspension Technique

- Candiani et al[6] proposed an alternative medial thigh lift that employs a **transverse skin excision with a vertical vector of pull.**
- Instead of relying on anchoring the Colles' fascia, this technique relies on the **strength of overlap between the gracilis and adductor longus fascia.**
- The operation begins with a transverse incision that is made parallel to, but 6-7 cm below, the inguinal crease.
- The skin and fat are undermined down to the fascia of the adductor longus and gracilis muscles.
- This fascia is overlapped and closed by an amount equal to the proposed skin and fat resection.
- The skin and fat are resected and closed under minimal tension with most of the tension borne by the gracilis and adductor longus fascia.

POSTOPERATIVE COMPLICATIONS

- Skin irregularities and depressions
- Hypertrophic scars
- Flattening of the buttocks from tension of wound closure
- Distribution of the vulva
- Lymphedema
- Recurrence of thigh ptosis

TIP: To prevent recurrence of thigh ptosis, anchor the closures to Colles' fascia or use fascio-fascial suspension of the adductor and gracilis muscles.

Key Points

- Aesthetic rejuvenation of the thigh begins with a complete history and physical examination to determine the presence, location, and severity of excess skin and fat in the thigh.
- Based on the degree of excess skin and fat, liposuction alone, a transverse medial thigh incision, or a vertical medial thigh incision should be made to correct the deformity.
- Care must be taken to preserve the soft tissue between the mons pubis and the femoral triangle to prevent postoperative lymphedema.
- The risk of thigh ptosis recurring is high unless a strong method of fixation is employed. This can be anchoring of Colles' fascia or fascio-fascial suspension of the adductor and gracilis muscles.

References

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