

Case 1

Flexion contracture of the hand

A 71-year-old man presents with flexion contractures of his left ring and small metacarpal-phalangeal joints and complains of difficulty with piano playing, sporting activities and hygiene.



Objective 1: The candidate can formulate a provisional diagnosis.

Question 1: What is your provisional diagnosis?

Key Answers 1:

Dupuytren's contracture/palmar fibromatosis

Objective 2: The candidate can take an appropriate history

Question 2:

What information would be important to obtain when taking a history from this patient?

Key Answers 2:

Onset and progression of disease

Involvement of other areas (contralateral hand, feet, penis, etc)

Prior interventions – nonoperative or operative

Comorbidities or risk factors (diabetes mellitus, HIV infection, epilepsy, smoking)

Objective 3: The candidate can develop a management plan

Question 3:

The patient informs you that he has previously had surgical excision of disease in his ring finger. That surgery was approximately 5 years ago and he first noticed recurrence approximately 2 years ago. He has noticed progressive difficulty with sporting activities, playing the piano, and hand hygiene. What are the options for managing this patient?

Key Answers 3:

Revision partial palmar fasciectomy with or without skin grafting

Collagenase injection (Xiaflex)

Needle aponeurotomy – likely not recommended given history of prior excision and severity of contracture.

Objective 4: The candidate is able to identify potential surgical complications

Question 4:

You decide to proceed with surgical management of this disease. The patient is consented for revision partial palmar fasciectomy plus split-thickness skin grafting (STSG) (see additional photo). What potential surgical complications must be discussed with the patient when obtaining informed consent?

Key Answer 4:

Injury to common digital nerves

Vascular compromise of digits

Exposure of critical structures (tendons, nerves, arteries)

Failure to take off STSG

Adhesions/Decrease range of motion of tendons under STSG

Infection

Recurrence of Dupuytren's contracture/palmar fibromatosis

Additional photo



Case 2

Immediate breast reconstruction

A 38-year-old woman presents to your office for discussion of immediate breast reconstruction. She has been recently diagnosed with right breast DCIS and a mastectomy has been recommended.



Objective 1: The candidate can appropriately examine the patient with respect to potential reconstructive options

Question 1: Describe your physical examination of this patient.

Key Answers 1:

General examination:

Height, weight, calculation of BMI

Breast Examination:

Palpation for masses

Examination of skin quality

Examination of nipple and areola – including ptosis

Breast measurements – SN to nipple, nipple to IMF, breast width, breast height

Symmetry

Donor site examination:

Examination of potential donor sites for redundant tissue, adequate volume

Examination of previous surgical scars that might impact potential donor sites

Objective 2: The candidate can determine options for immediate breast reconstruction

Question 2: What methods of immediate breast reconstruction are options for this patient?

Key Answers 2:

Autologous:

Pedicled TRAM

Free TRAM, MS-TRAM, DIEP

Free TUG, SGAP, IGAP

Autologous + Implant-based:

Latissimus dorsi plus tissue expander

Latissimus dorsi plus direct-to-implant

Implant-based:

Direct-to-implant with acellular dermal matrix

Two-stage reconstruction with insertion of tissue expander

Objective 3: The candidate can develop a management plan.

Questions 3:

The patient desires immediate implant-based reconstruction due to her young children and athletic involvements. What features make this woman a good candidate for direct-to-implant reconstruction.

Key Answers 3:

Small-breasted

Non-ptotic

Normal body mass index

Breast cancer characteristics compatible with skin-sparing mastectomy

Objective 4: The candidate can effectively management complications of direct-to-implant reconstruction

Question 4:

The patient undergoes immediate reconstruction with direct-to-implant reconstruction using acellular dermal matrix. Surgery is uneventful. She arrives at her first follow up visit with this appearance (see Additional Photo 1). What is your diagnosis? How would you manage this problem?

Key Answer 4:

Diagnosis: Hematoma

Management:

Return to operating room for evacuation hematoma

Attempt at implant salvage

Triple antibiotic solution

Debridement devitalized tissue

Intraoperative cultures

Consider implant exchange

Closure over a drain

Additional photo

