

Hand Surgery: Medico-legal Issues



D.J. Shewring

“Negligence”

(Lat. *negligentia*, from *neglegere*, to neglect, literally "not to pick up something")

Involves harm caused by *carelessness*, not intentional harm



“Negligence”

Simple mistake

Lack of knowledge

Failure of wisdom

Failure of technique

“Negligence”

Simple mistake

Lack of knowledge

Failure of wisdom

Failure of technique

ALL of the above..

Donoghue v. Stephenson (1932)



Donoghue v. Stephenson (1932)



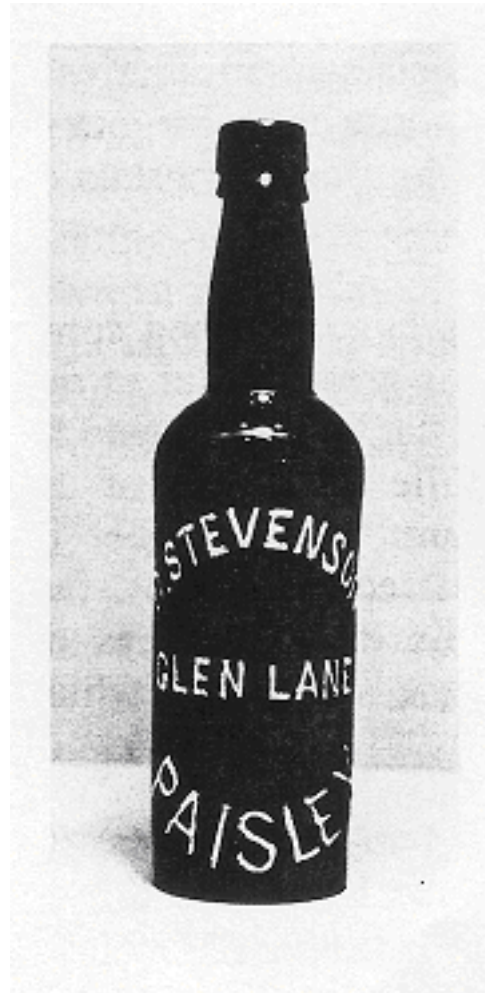
Donoghue v. Stephenson (1932)



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Donoghue v. Stephenson (1932)



Donoghue v. Stephenson (1932)



Lord Atkin of Aberdovey

- **Negligence**
- **Duty of care.**
- **Neighbour principle**

Lord Atkin of Aberdovey

1867 - 1944



Lord Atkin of Aberdovey



THE "SNAIL IN THE BOTTLE" CASE

This site was improved by Renfrewshire Council in 2012 with the support of Celia Lawson, Provost of Renfrewshire (2007 to 2012) and assistance from Reid Kerr College and the Co-operative Funeralcare.

This is the site of the former Wellmeadow Cafe, the scene of an event that was the basis of a landmark legal case. To this day it remains famous around the world.

On 26 August 1928, Mrs Donoghue met a friend at the Wellmeadow Cafe. Her friend bought her a bottle of ginger beer. As she enjoyed her drink, part of a decomposing snail fell out of the bottle. It is recorded that Mrs Donoghue suffered shock and a severe stomach upset as a result. As she had not bought the drink, Mrs Donoghue had no legal contract with the cafe owner. The case made on Mrs Donoghue's behalf therefore focused on whether the manufacturer and bottler of the drink, David Stevenson should be held responsible. Previously the law had declared there was no legal connection between consumer and manufacturer.

The case itself never came to trial and was finally settled out of court. Before that there was much legal debate over whether there was a case to hear. In May 1932 the House of Lords ruled there was. Lord Atkin looked to the Bible story of the Good Samaritan and the principle of loving your neighbour to help him decide. He found that just as neighbours should care for each other so should manufacturers care about the consumers of their products.

The Donoghue v Stevenson case established the precedent of negligence based on the 'neighbour principle' and has been followed internationally by courts since.





Scaphoid Fracture



Scaphoid Fracture

- Incidence

250,000 => 1 p/w

11% of all hand fractures

- Epidemiology



Scaphoid Fracture

- Incidence



- Epidemiology

M:F 4:1

Age: 20 – 30

Anatomy



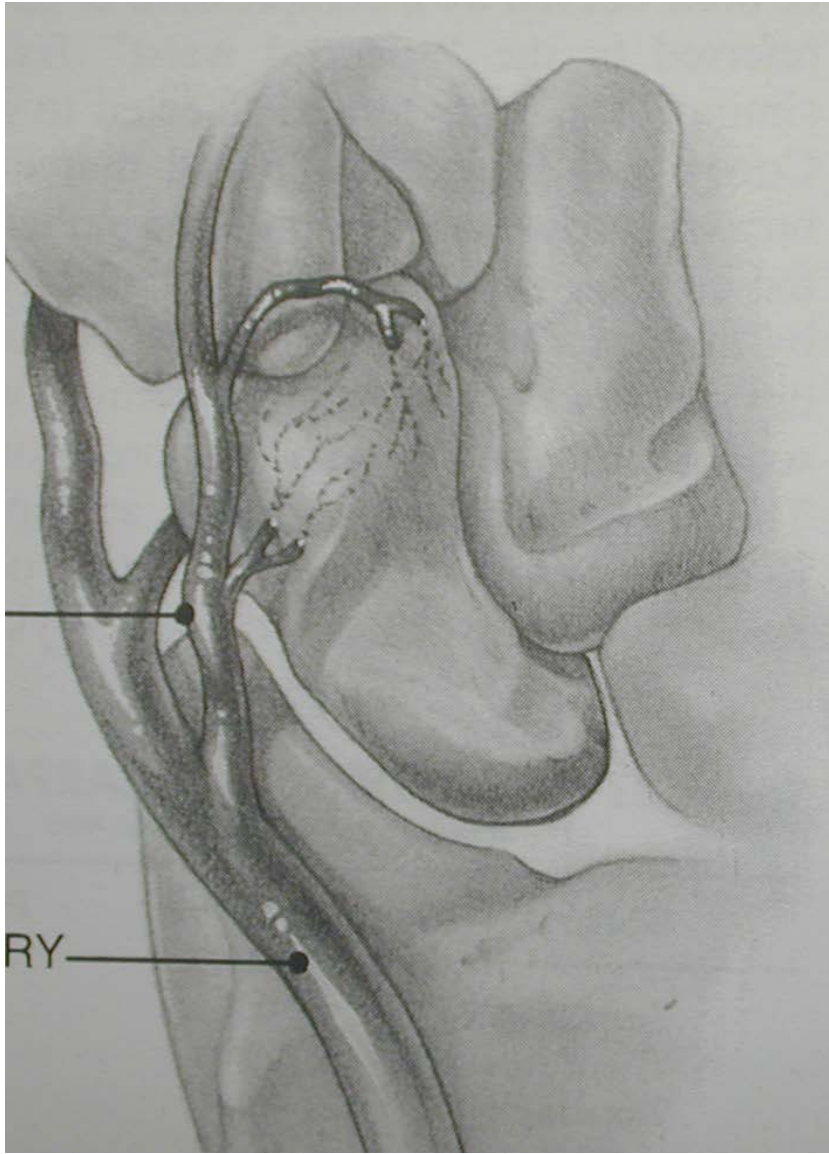








Anatomy



Diagnosis

History



Diagnosis

History



Diagnosis

History



Diagnosis

History



Diagnosis

History

Age/Sex

Diagnosis

History

Age/Sex

Findings

4 tenderness tests:

- “anatomical snuff box”
 - scaphoid tubercle
 - dorsal
 - telescoping

Diagnosis

History

Age/Sex

Findings



ASB tenderness

Sensitivity = 96%

Diagnosis

History

Age/Sex

Findings



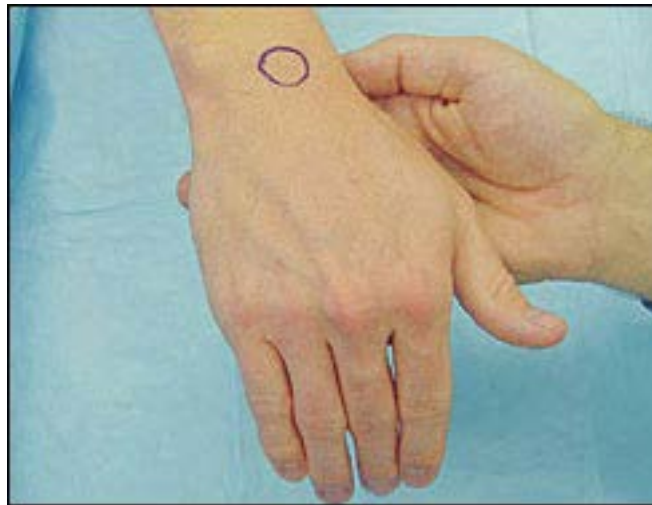
Scaphoid tubercle palpation tenderness has a sensitivity of 87% and a specificity of 57% as an indicator of a scaphoid fracture

Diagnosis

History

Age/Sex

Findings

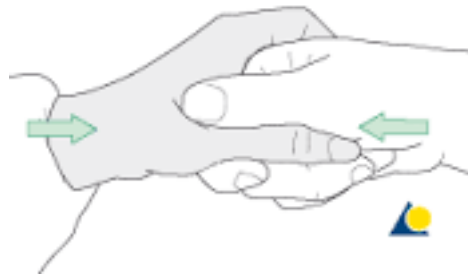


Diagnosis

History

Age/Sex

Findings



Radiographs

SCAPHOID VIEWS

- PA
- Lateral
- 2 Obliques



The P.A. View

wrist MUST be in ulnar deviation





The Obliques



The Lateral



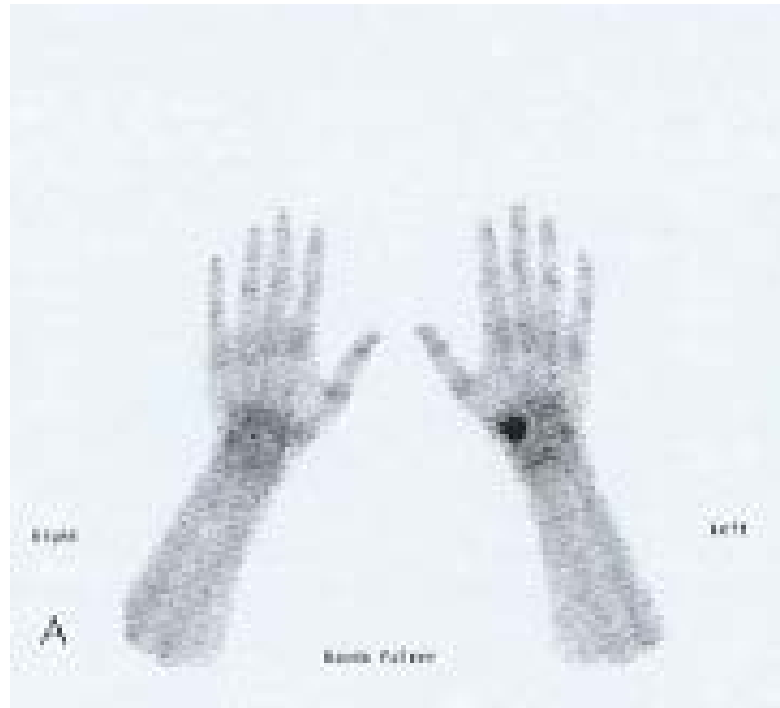
Differential Diagnosis

- # Distal Radius
- Soft tissue injury
- Scapholunate ligament damage
- Ulnar Collateral Ligament injury thumb
- arthritis base of thumb

The “? # Scaphoid”

Other Investigations.....

Bone scan



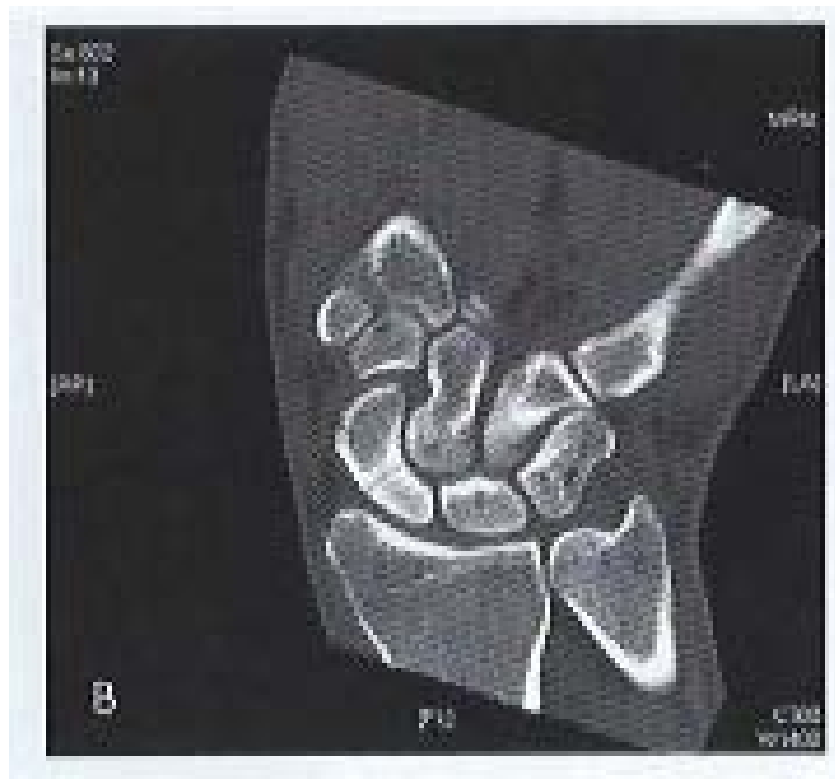
Other Investigations.....

MRI



Other Investigations.....

CT scan



Management: *undisplaced*



Management: *undisplaced*

below elbow polymer 8/52

thumb free

Xray @ 3/12 after ROP

Management:

displaced

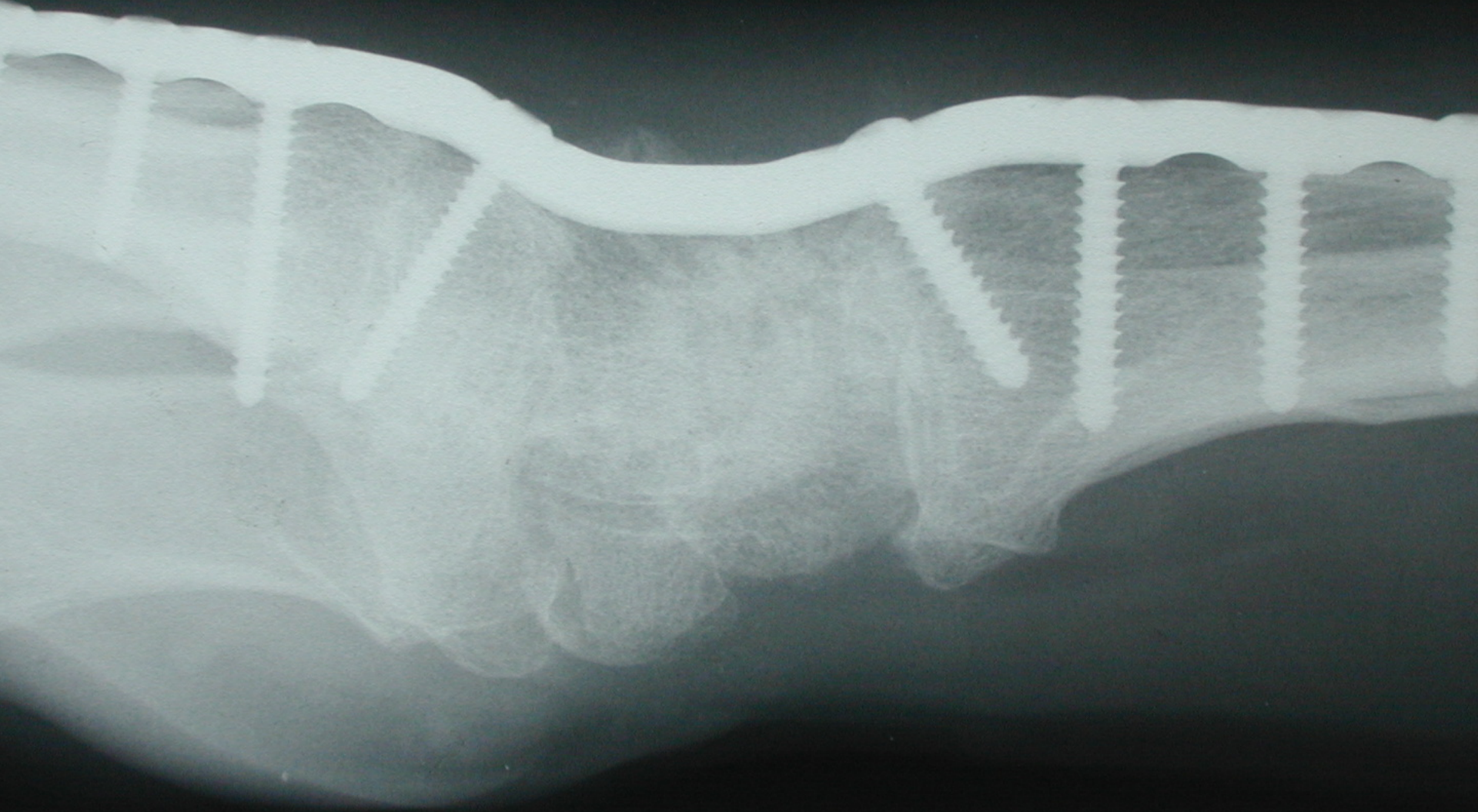


Non-Union









Acute Carpal Disruption

- Scapho-lunate Dissociation
- Peri-lunate Dislocation
- Trans-scaphoid Perilunate Dislocation

scapho-lunate dissociation



scapho-lunate dissociation



scapho-lunate dissociation



perilunate dislocation



trans-scaphoid perilunate dislocation



trans-scaphoid perilunate dislocation



case

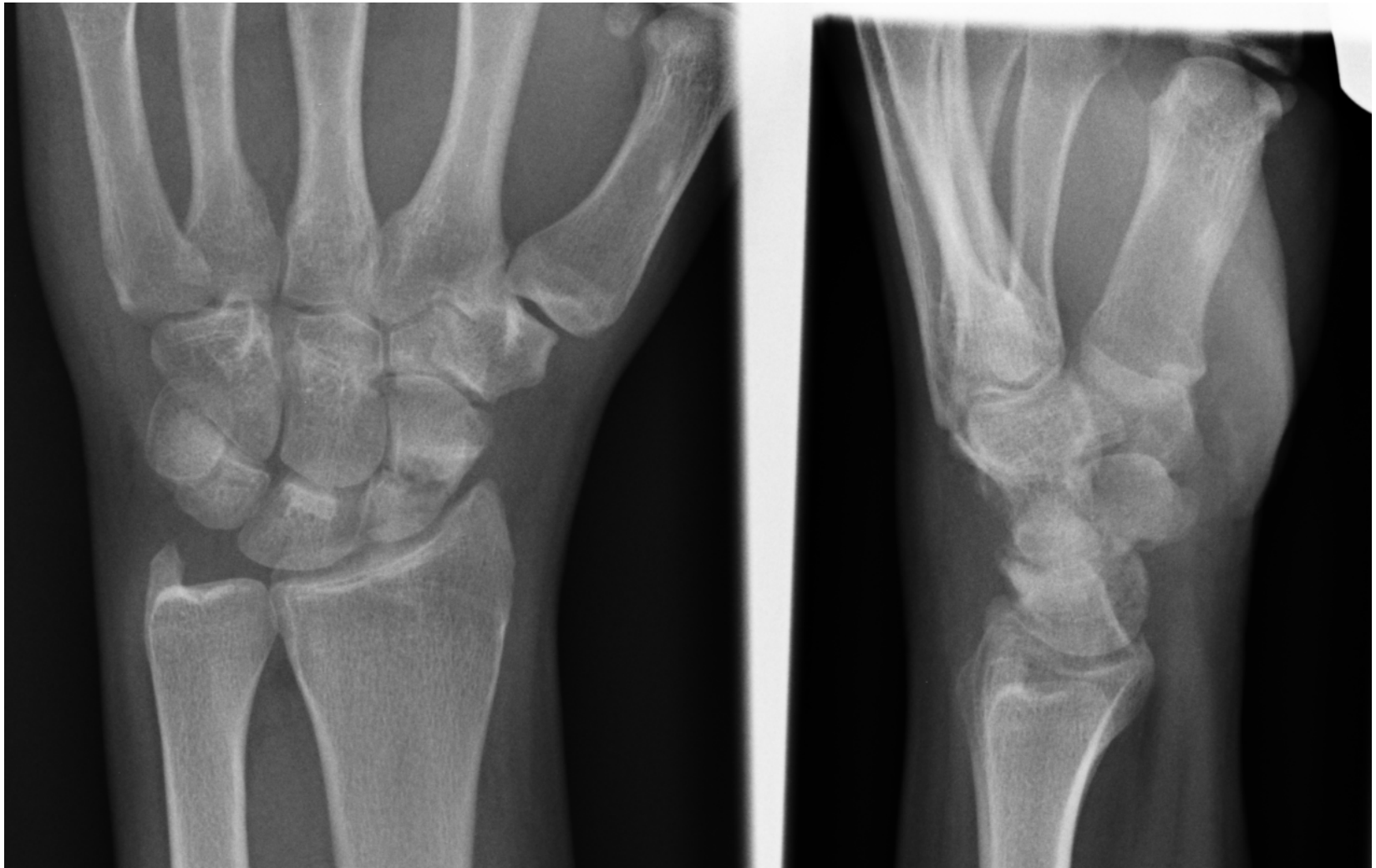
26 year old man

	Unknown
PC, luf (G) wrist non dominant	Achy father
HPC, Pushed car accidentally ^{after} playing football last night - FOOSH	
↑ pain, no analgesic taken	
PMH, Well	Meds Nil
OS, No gross deformity Minimal swelling Tender: distal radius ASB non tender Lateral flexion Cox Ext Circ ✓	Sens ⊕
Imp, ? #	→ xray
xray NAD (Distal Radius fracture Antero re. effusion)	
A Strain, PL Gently mobilize, an analgesic PR SOS	



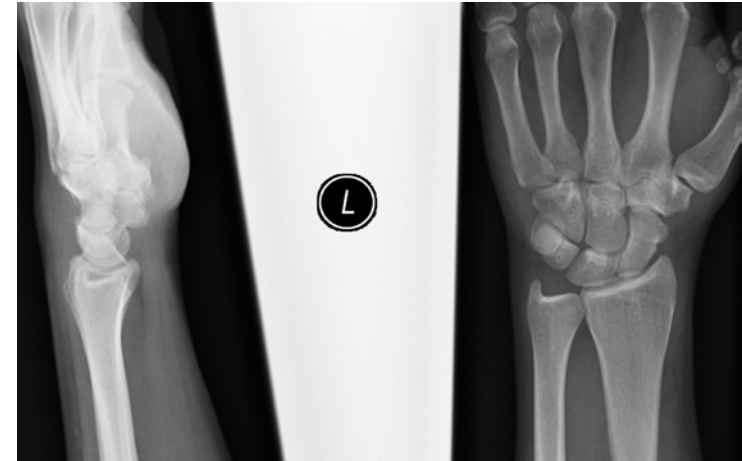
I reviewed this young man in my clinic who sustained the 1st injury in August of last year when he fell onto his left hand whilst playing football. At the time the x-ray was negative and no treatment was given.

About a month ago he had a further injury and went to his GP who arranged an x-ray. This x-ray was done on 06.06.2014 and it has now confirmed a non-union of the scaphoid. He has been put



26 year old man

PC, luf (G) wrist Achy father
non dominant
HPC, Pushed over accidentally ^{after} playing football last night -
FOOSH
↑ pain, ~~no~~ analgesic taken
PMH, Well Meds Nil
exam, No gross deformity
Minimal swelling
Tender: distal radius
ASB non tender
ltd flexion
can ext
dine ✓ Sens @
lup, ? # → xray
xray MAB (Distal Radius fracture re. effusion)
A strain, PL. Gently mobilize, an analgesic PRN



history ✓
sex ✓
age ✓
tenderness ✓
tests ✗
radiographs ✗

case

Mr B age 30

5.10.10

Seen by Miss XXXX, Consultant Orthopaedic Surgeon.

Left scaphoid fracture.

Mr B sustained the above injury yesterday when he came off his mountain bike. He has an effusion in the anatomical snuffbox and is tender over the dorsum of the scaphoid tubercle and in the snuffbox. Pain on axial compression of the thumb and ulnar deviation of the wrist.

X-ray shows an obvious fracture at the waist of the scaphoid which is minimally displaced.

I think we can treat this non operatively in the first instance and I have therefore placed him in a scaphoid cast for eight weeks. We will see him at that stage, cast off and x-ray.



18.2.11

Seen by Miss XXX

Four months since injury. Despite being in plaster for an adequate length of time, unfortunately this has not healed and this is confirmed on his CT scan. He remains symptomatic and I am sure this needs to be fixed. It is a waist fracture and there is no real sclerosis on x-ray. I think this probably is a well vascularised fragment and I do not think we need to do any further imaging.

We will arrange for him to come in for open reduction and internal fixation with bone graft. Consented today and we will try and get him in within the next couple of weeks.



23.2.11 *ORIF + bone graft left scaphoid non union.*



8.4.11

Seen by Miss XXX

Six weeks since procedure. Cast removed and wound has healed nicely. Much more comfortable than he was when he came out of plaster last time.

*X-ray does seem to show some bridging callus forming, although **oddly the screw has begun to back out** leaving a lucency in the distal pole. However, hopefully this is uniting. I think at some stage this screw may have to come out, but certainly not at the moment.*

See in seven weeks with scaphoid views on arrival.



4.8.11

Seen by Miss XXX

Six months since procedure. Largely asymptomatic.

X-ray does not show a very convincing union, but the screw has now completely backed out and I am sure is doing absolutely nothing....



20.8.11 *Re-fixation left scaphoid.*



21.10.11

Seen by Miss XXX... *X-ray shows screw has backed out again a little, but the scaphoid does look as if it is probably uniting now.*



Reviews:

7.12.11

7.2.12

15.5.12

14.9.12

20.3.13

9.10.13

Seen by Miss XXX

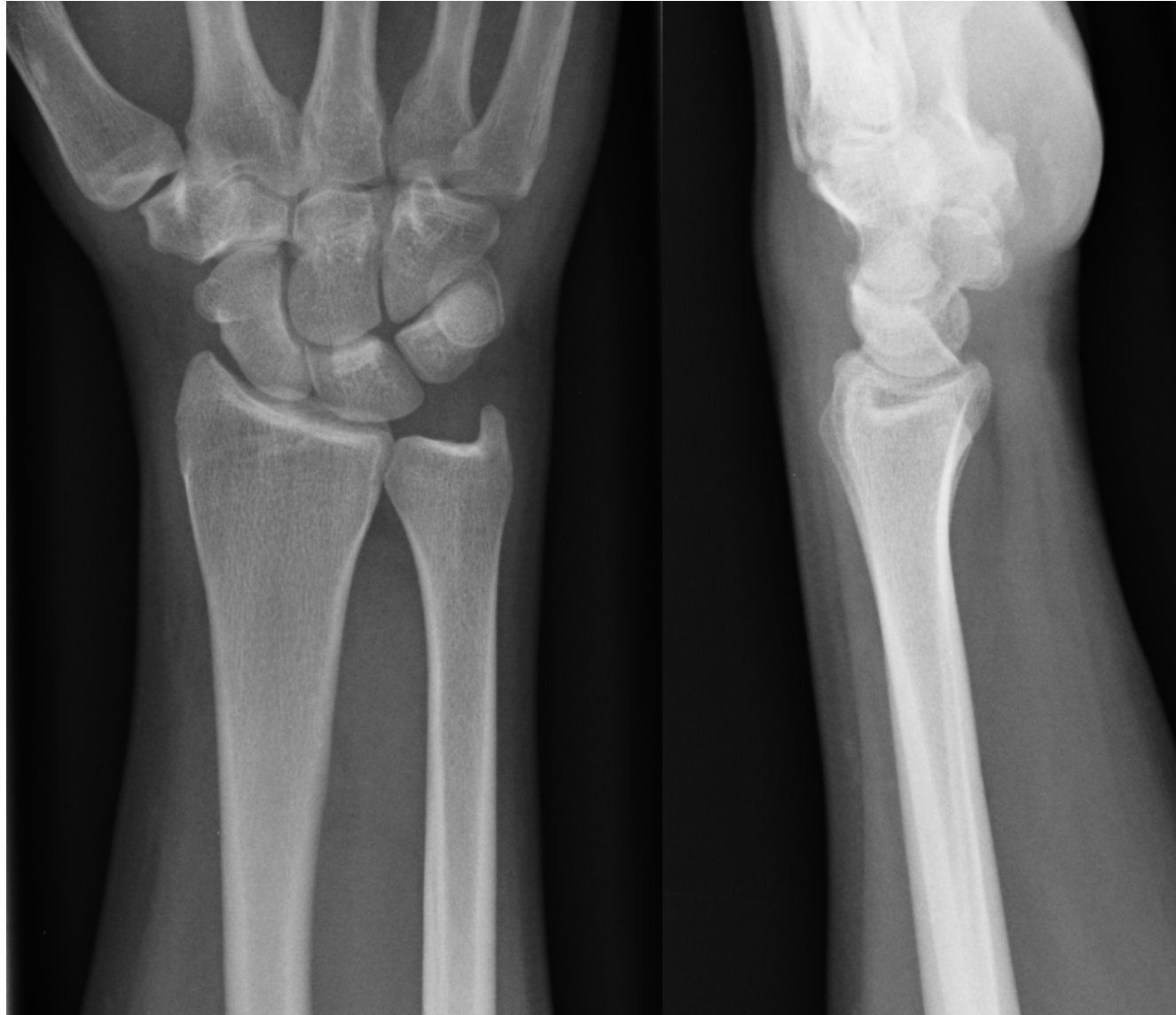
... remains largely asymptomatic but x-ray was not at all convincing. We've done a CT scan and I really don't think this has united. In addition he seems to be forming a DISI deformity.... I think it would be sensible for us to ask one of the hand surgeons.....to see him.



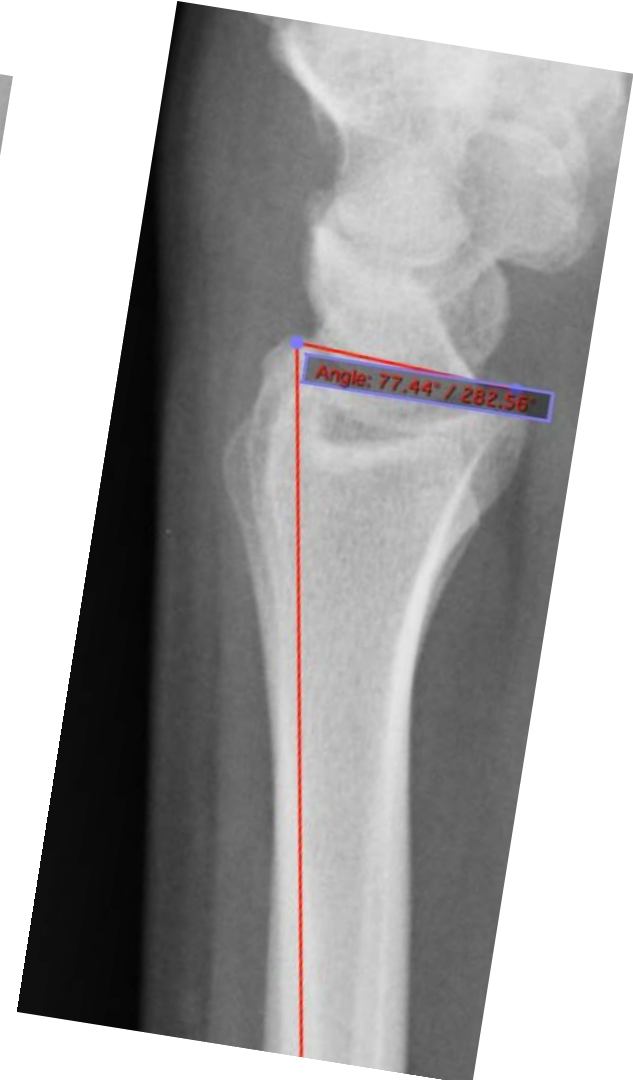
Fracture Distal Radius



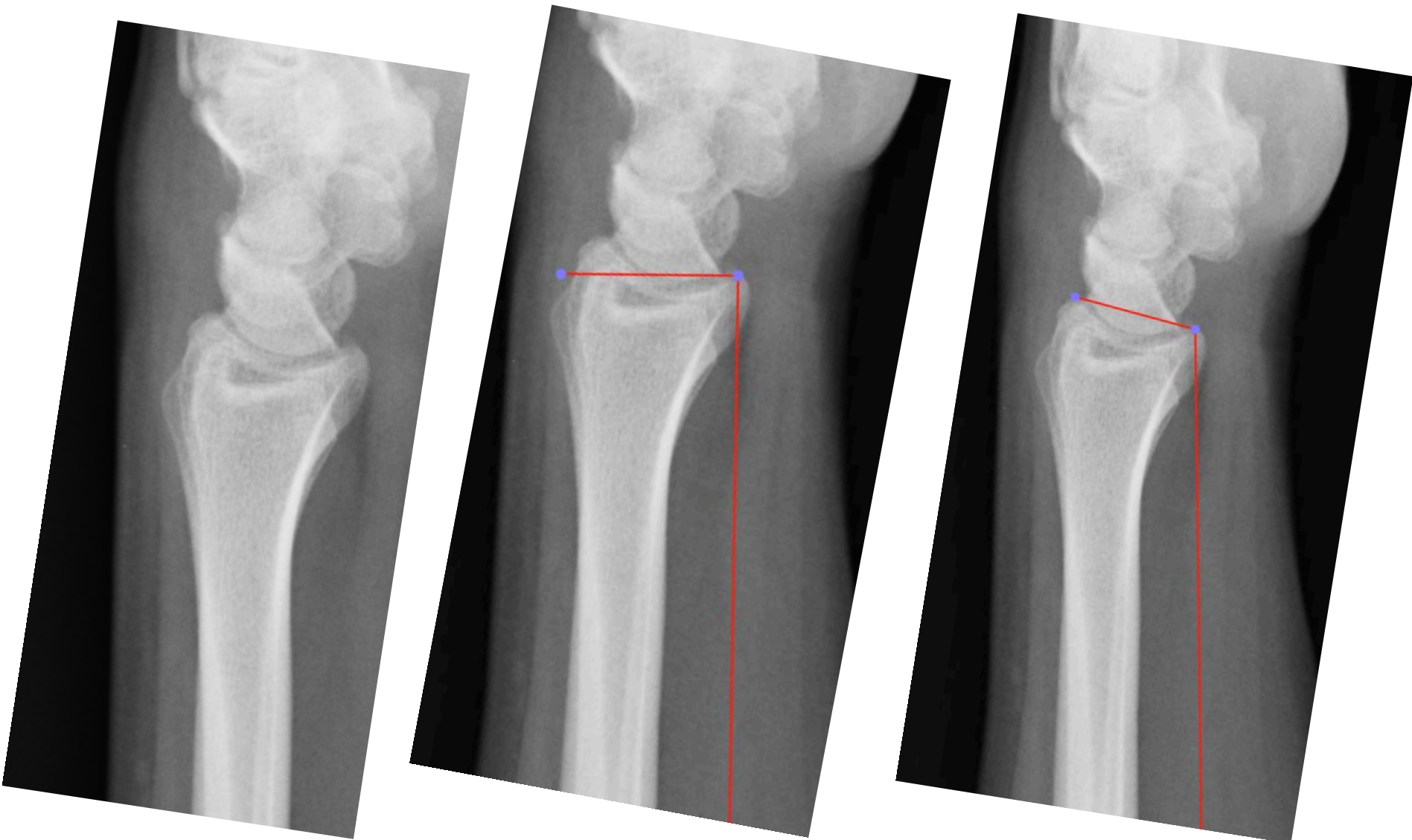
Fracture Distal Radius



Fracture Distal Radius



Fracture Distal Radius



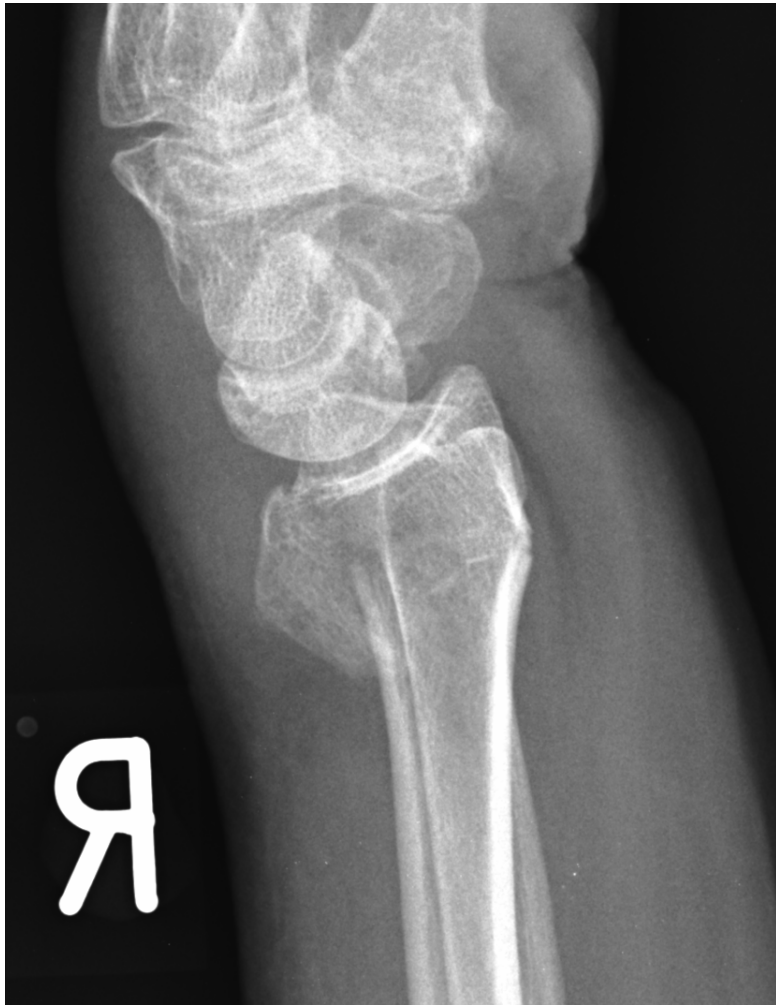


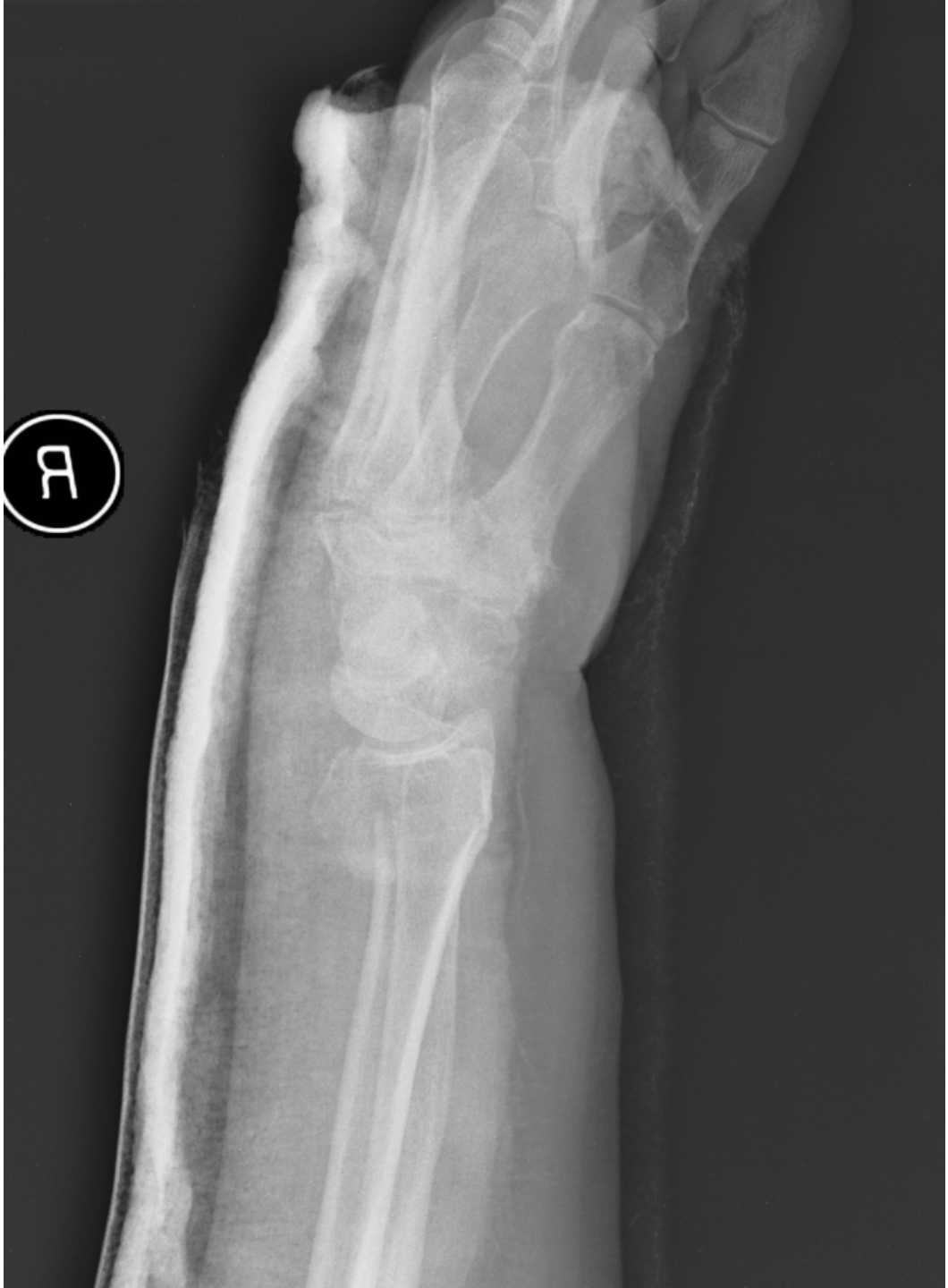
Angle: 75.99° / 284.01°





case



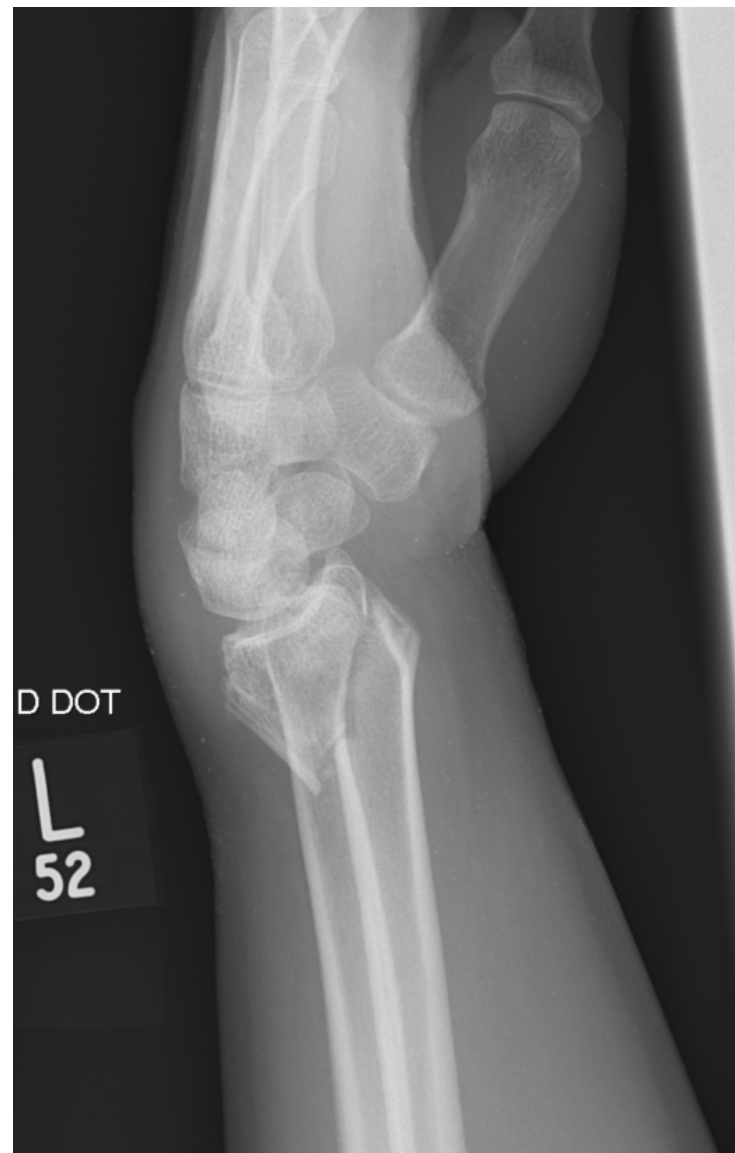




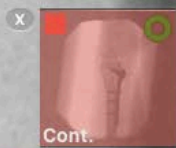




case













L

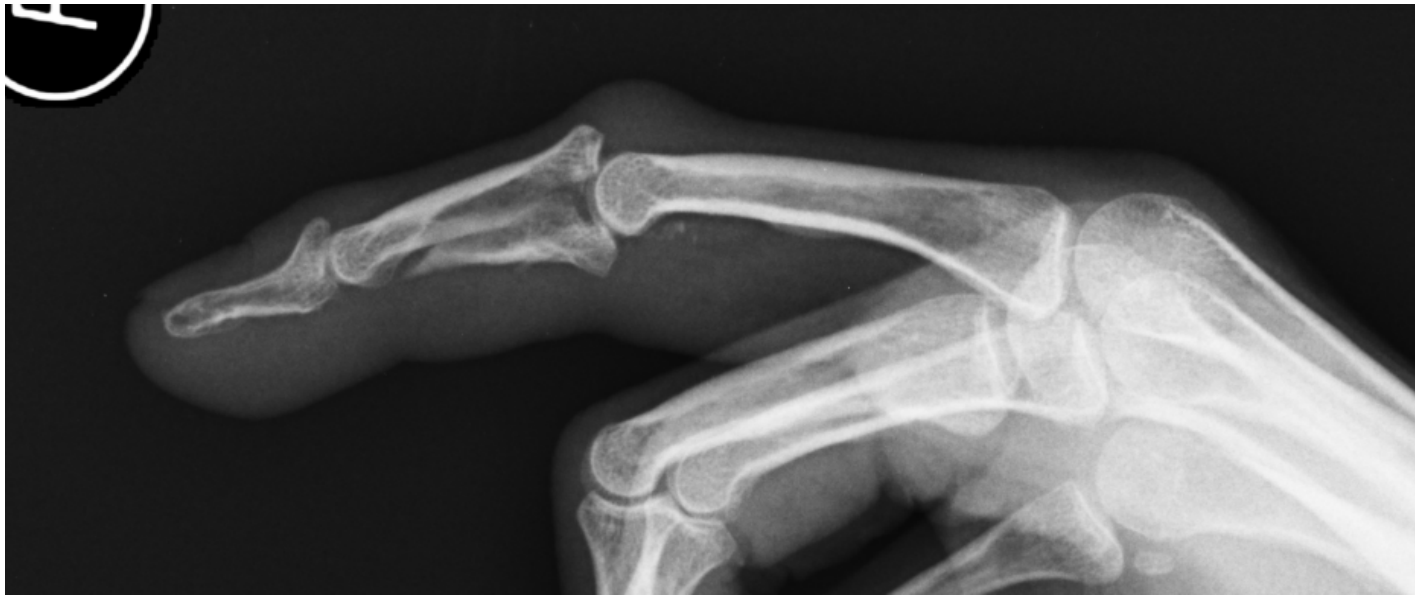
301/38/70

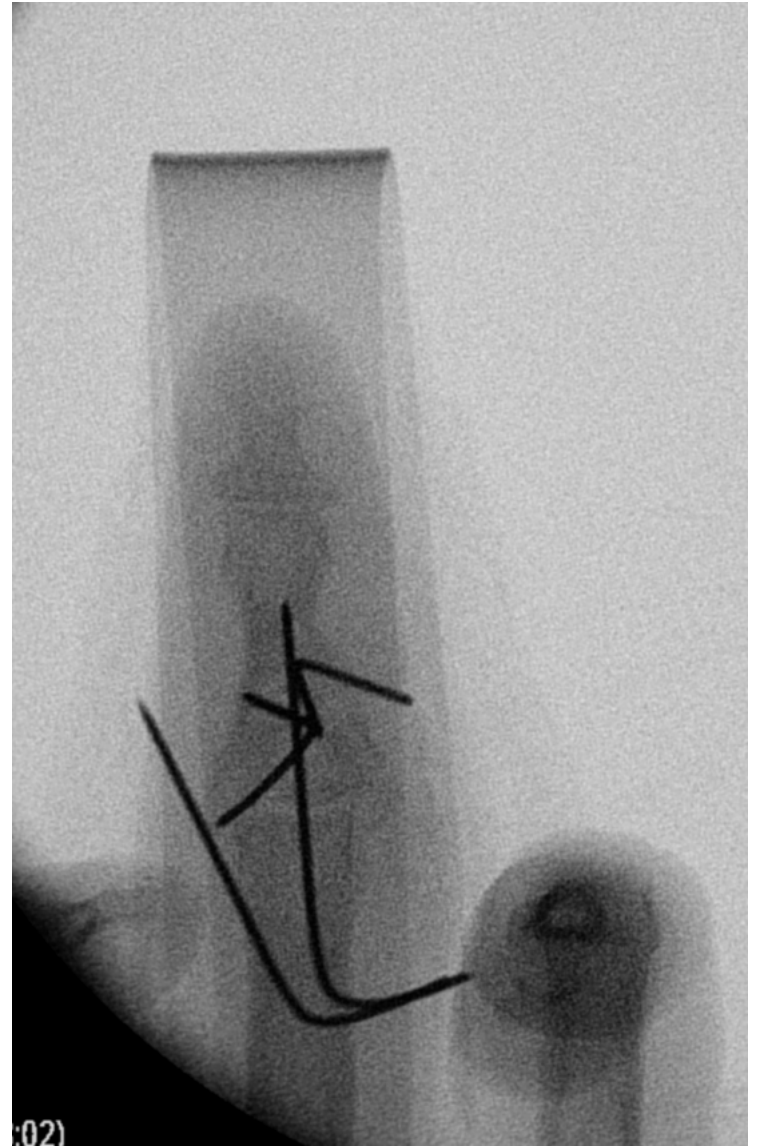
Other fractures....

Current situation: I met this delightful lady today in clinic. She is right hand dominant who works for the local ambulance services. Her presenting complaint is swelling and pain in the right middle finger at the middle phalanx.

Today on examination there is bruising, swelling and tenderness of the right phalanx of the middle finger. Closed injury, no neurovascular deficit. Radiograph is showing severe displaced fracture of the middle phalanx. Today I have explained the treatment options to Ms. _____ which include conservative treatment and operative treatment. Conservative treatment will be unacceptable in such a scenario because the fracture is badly displaced and there is a higher risk of arthritis and stiffness. Operative treatment would relieve her pain and will give a better chance of healing although there is a risk of osteoarthritis in the long term because of the intra-articular involvement.

Ms. _____ fully understands these risks and benefits and is keen to have surgical fixation of the fracture. Consent form has been signed, surgery will be performed in due course on our trauma list.















i would be very grateful if you could arrange to see this patient.

Problems: 1) previous arthrodesis to distal inter phalangeal joint little finger. He is a prison officer and is often involved with restraining prisoners and as a result of this joint this affects his grip strength and general function.

On examination no signs of infection. There is some reduction in function to this hand however on gripping and in view of this would be very grateful for your assessment.



Thank you very much for referring this gentleman who is a right-handed prison officer and who has had a previous injury to the DIP joint of his right little finger, requiring an arthrodesis.

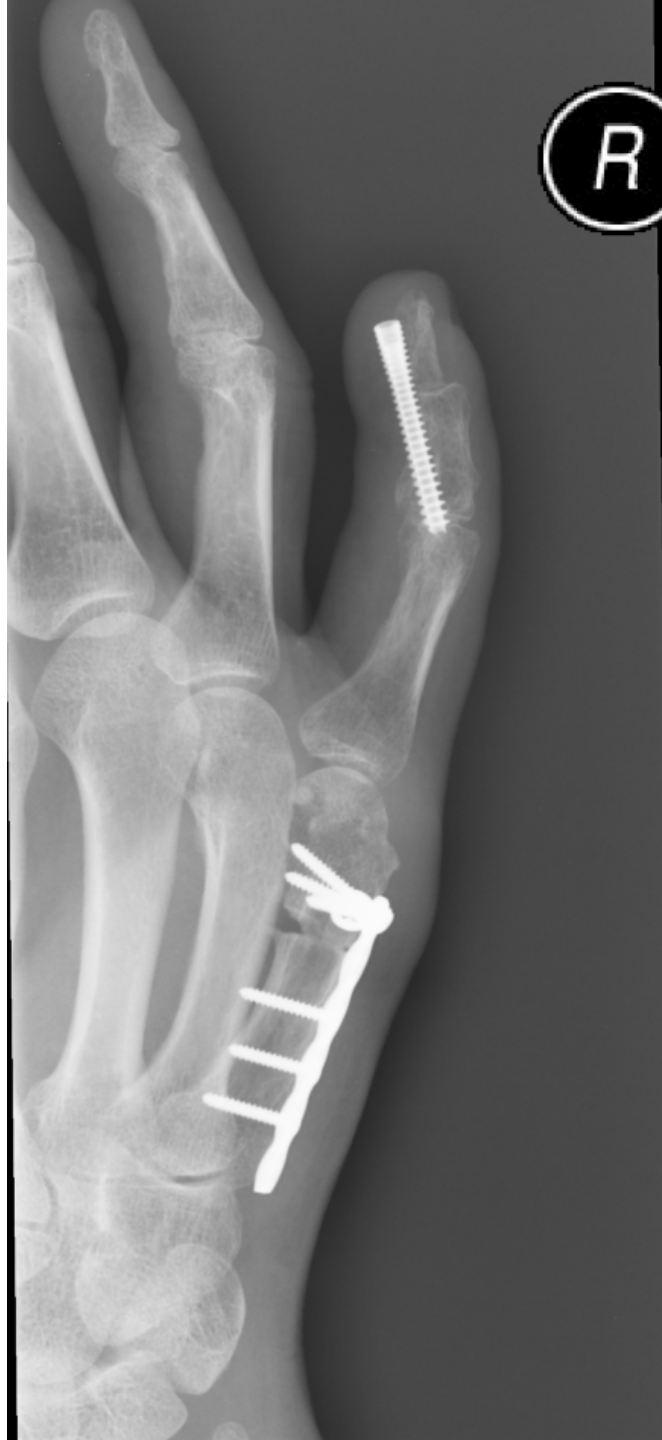
Whilst the arthrodesis has technically been sound, the position is such that his finger is fully extended at the DIP joint, making grip very difficult for him. Partly as a result of this, his finger gets caught, particularly when he is involved in restraint activities at the prison. Accordingly, his finger is injured on a regular basis and he had an injury in the summer of this year to the metacarpal which he thought was just a soft tissue problem. Unfortunately, it took quite some time to settle down and has left him with a rotational mal-alignment of his finger, almost certainly secondary to a fracture of the metacarpal neck.

He has swelling and discomfort at the DIP joint of the little finger, compatible with retained metalwork which is certainly present on x-ray, in the form of a cerclage wire.

There is a mal-united, mal-rotated neck of 5th metacarpal fracture which is the source of the three plane deformity of the finger. His fingers do overlap with probably a 20 – 30° rotational anomaly.

To put this right would require an osteotomy and internal fixation and I have described these to him in detail. Despite the risks of non-union, mal-union, infection and tendon problems, he is keen to go ahead and have this done. I have also discussed with him (at his request) taking down the arthrodesis of the DIP joint and refashioning this in slight flexion to allow him to get some purchase when he grips. I will carry out both procedures at the same sitting, namely an osteotomy and internal fixation of his little finger metacarpal and re-do arthrodesis of the DIP joint right little finger under general anaesthetic as a day case.





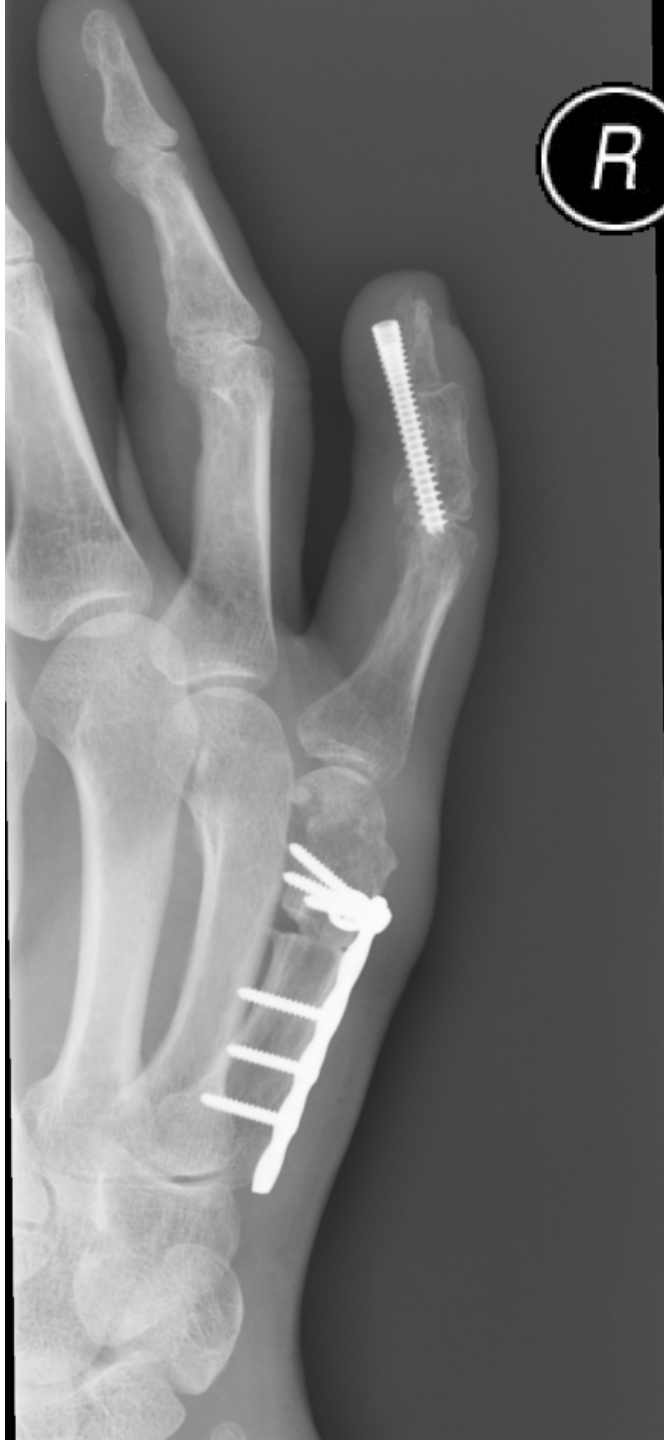
This gentleman is back today. His x-rays showed that the osteotomy is healing nicely, although has a little way to go yet before I can call it fully united.

The finger arthrodesis appears to be sound, but the screw is now prominent in the pulp of his finger to the point that it is causing him a significant amount of discomfort. He is not going to be able to get by with things as they are, as the fingertip is still swollen and causing him distress.

Accordingly, I will remove the screw for him and then get him manipulated, all under local anaesthetic. I hope that this will free things up and allow him and his physiotherapist to get further benefit.

I will see him again hopefully at the treatment centre in Gateshead in the next few weeks.





R





























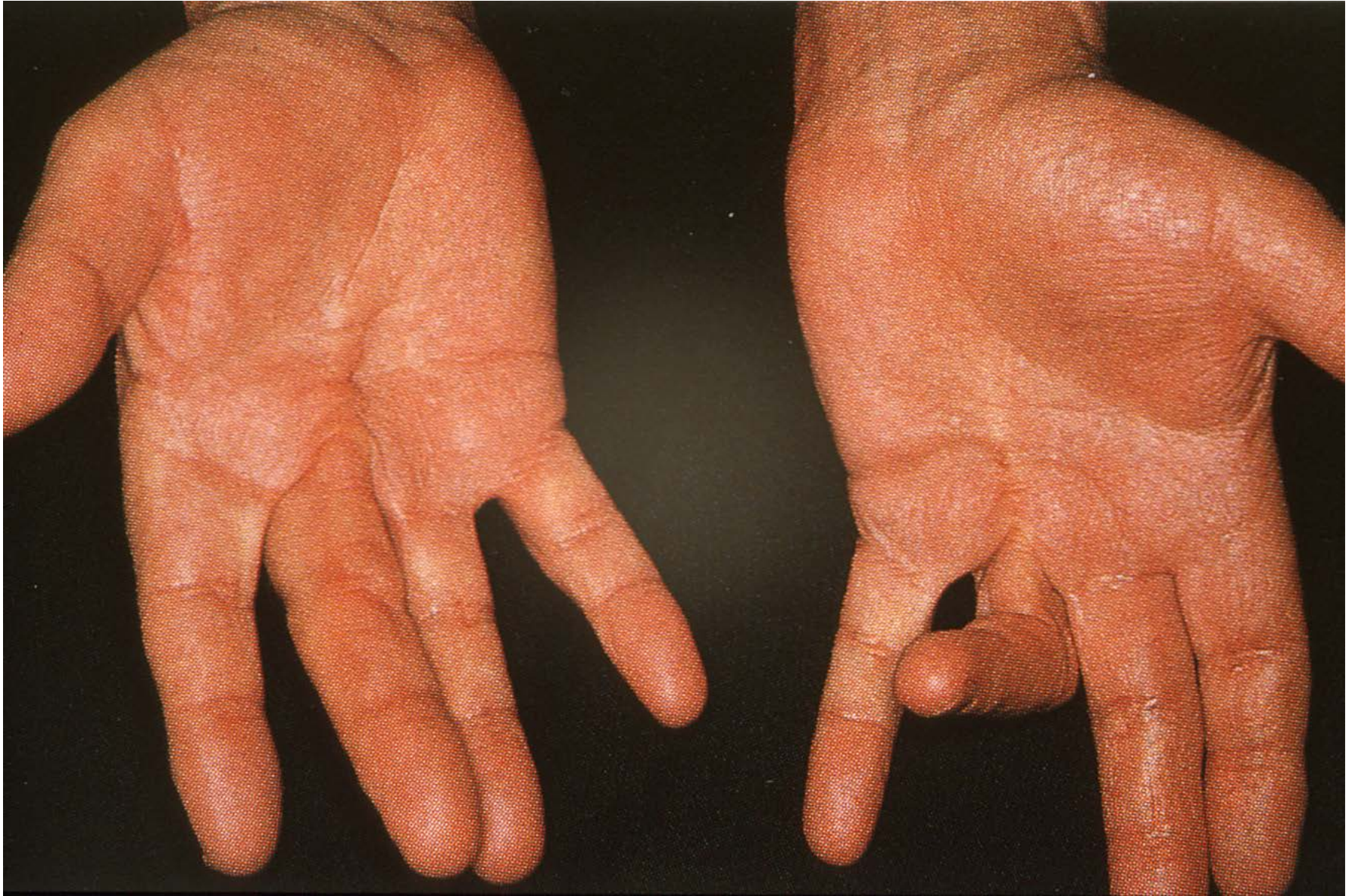








Dupuytren's Disease



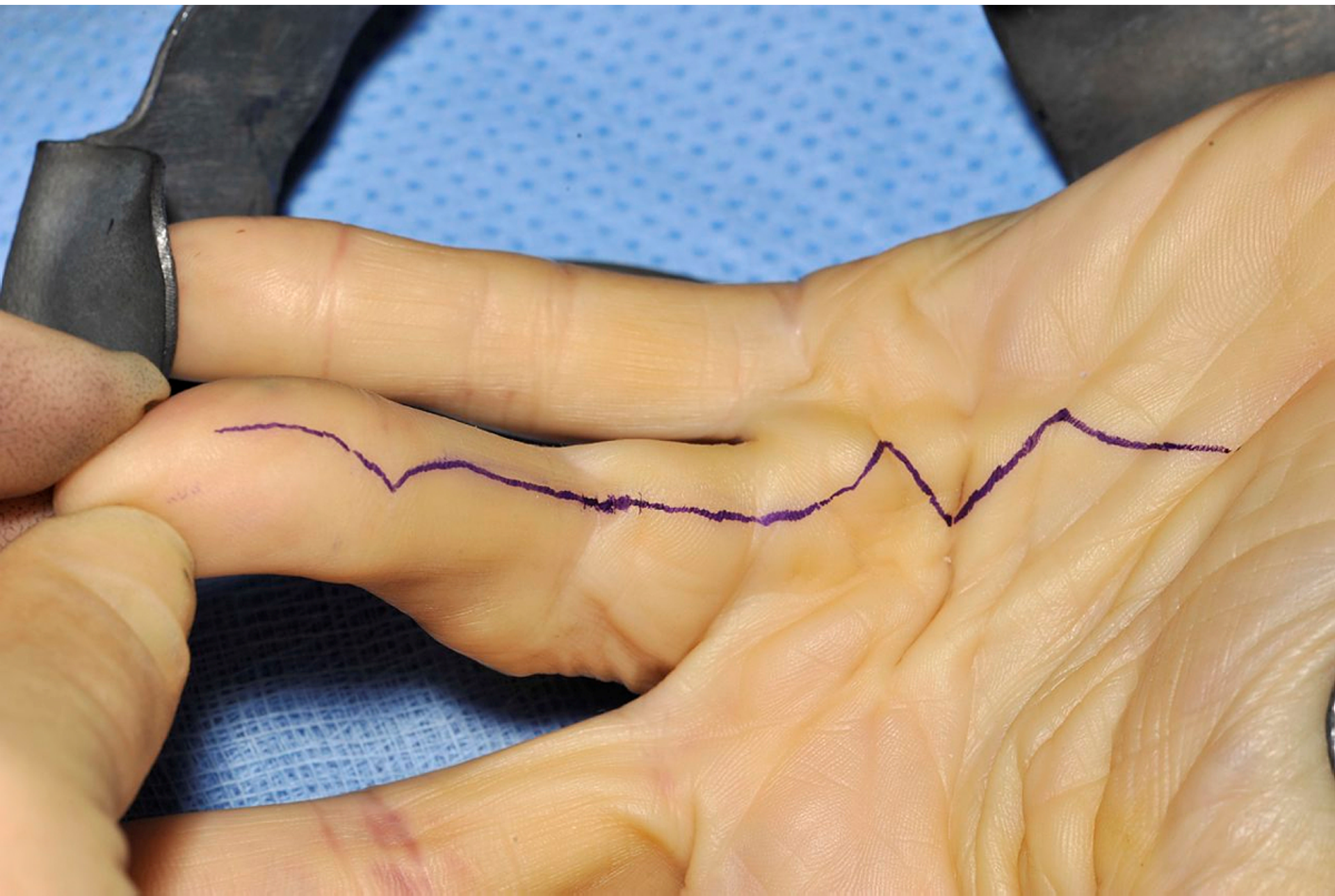


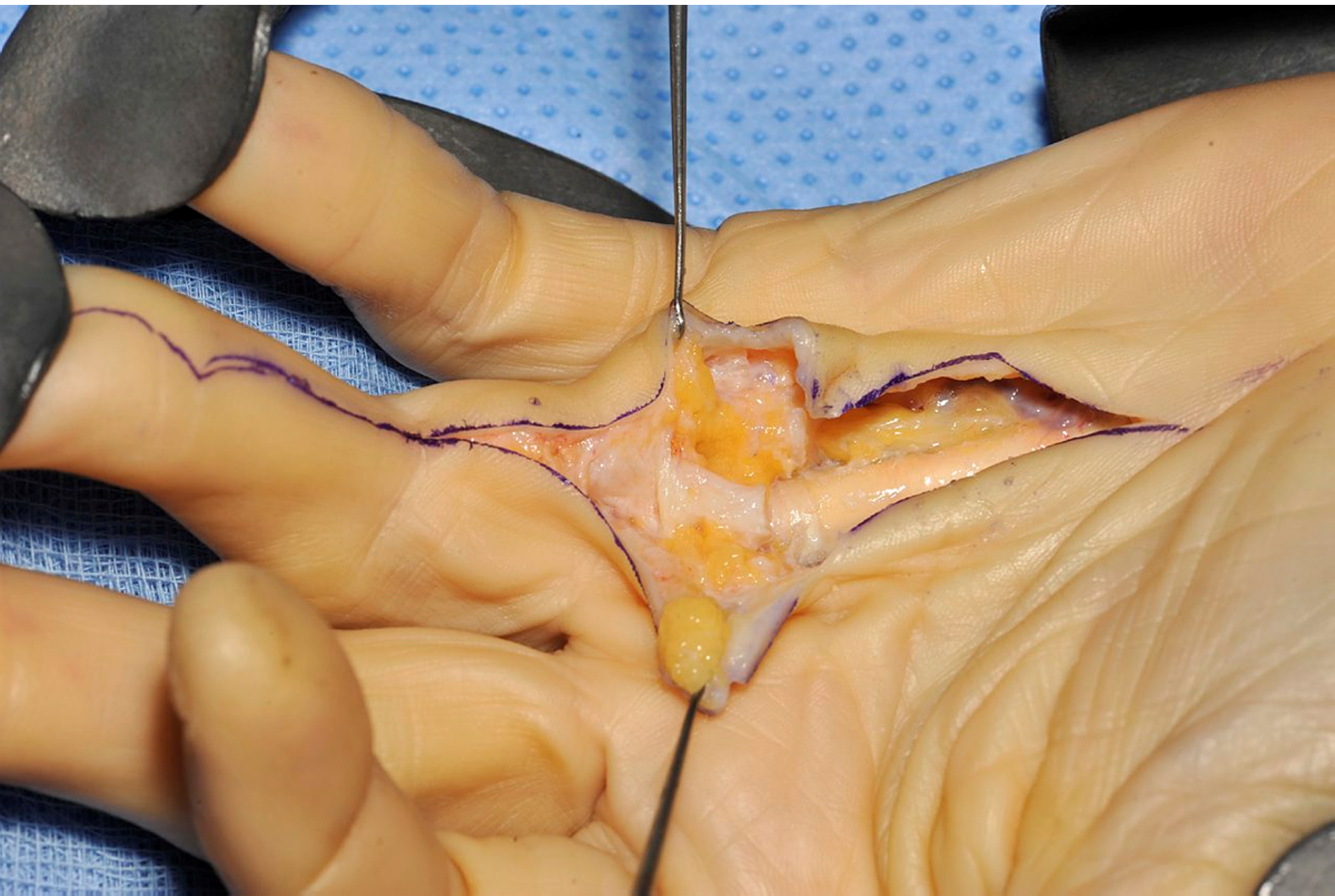
CORDS:

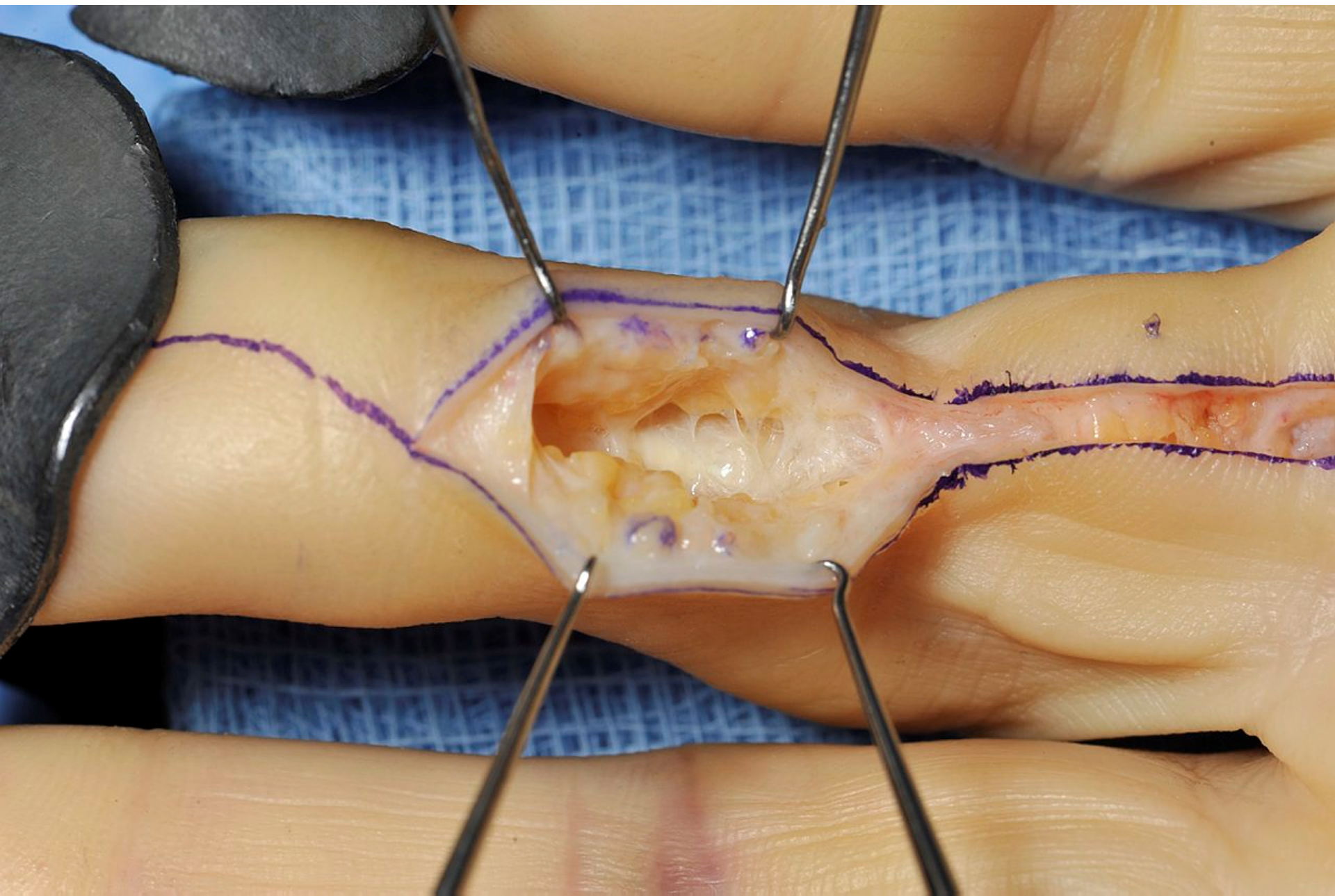
SPIRAL
CENTRAL
LATERAL

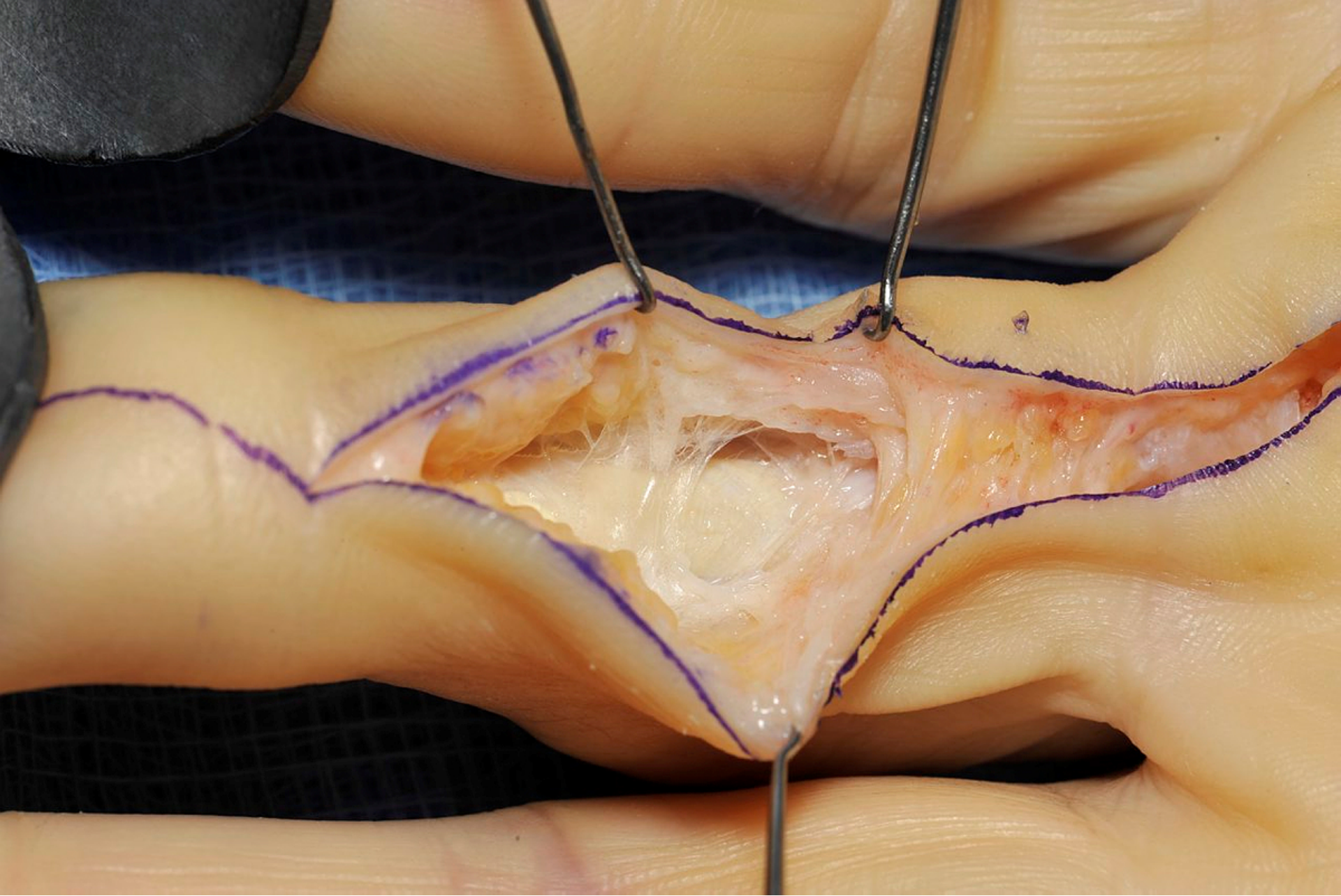


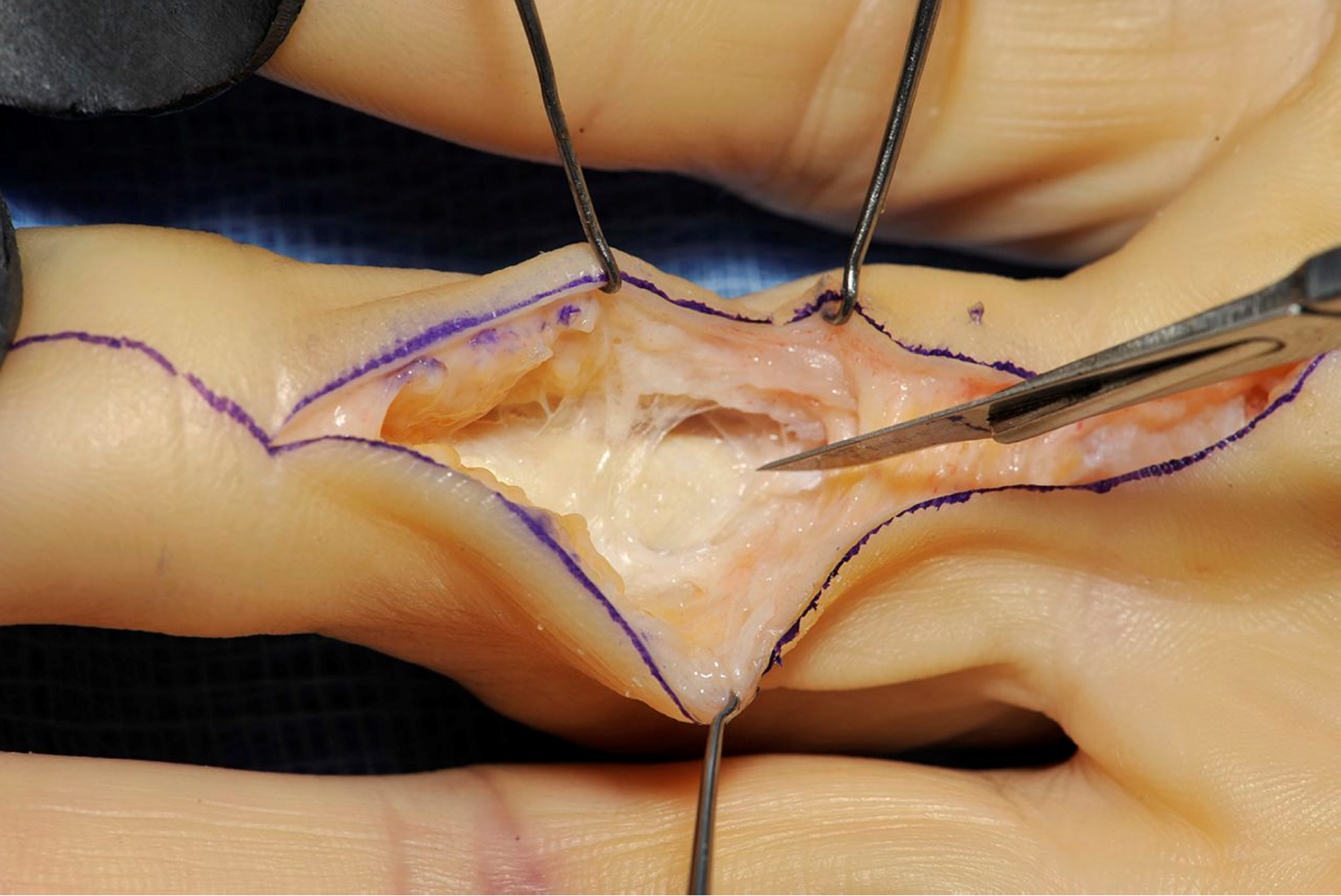


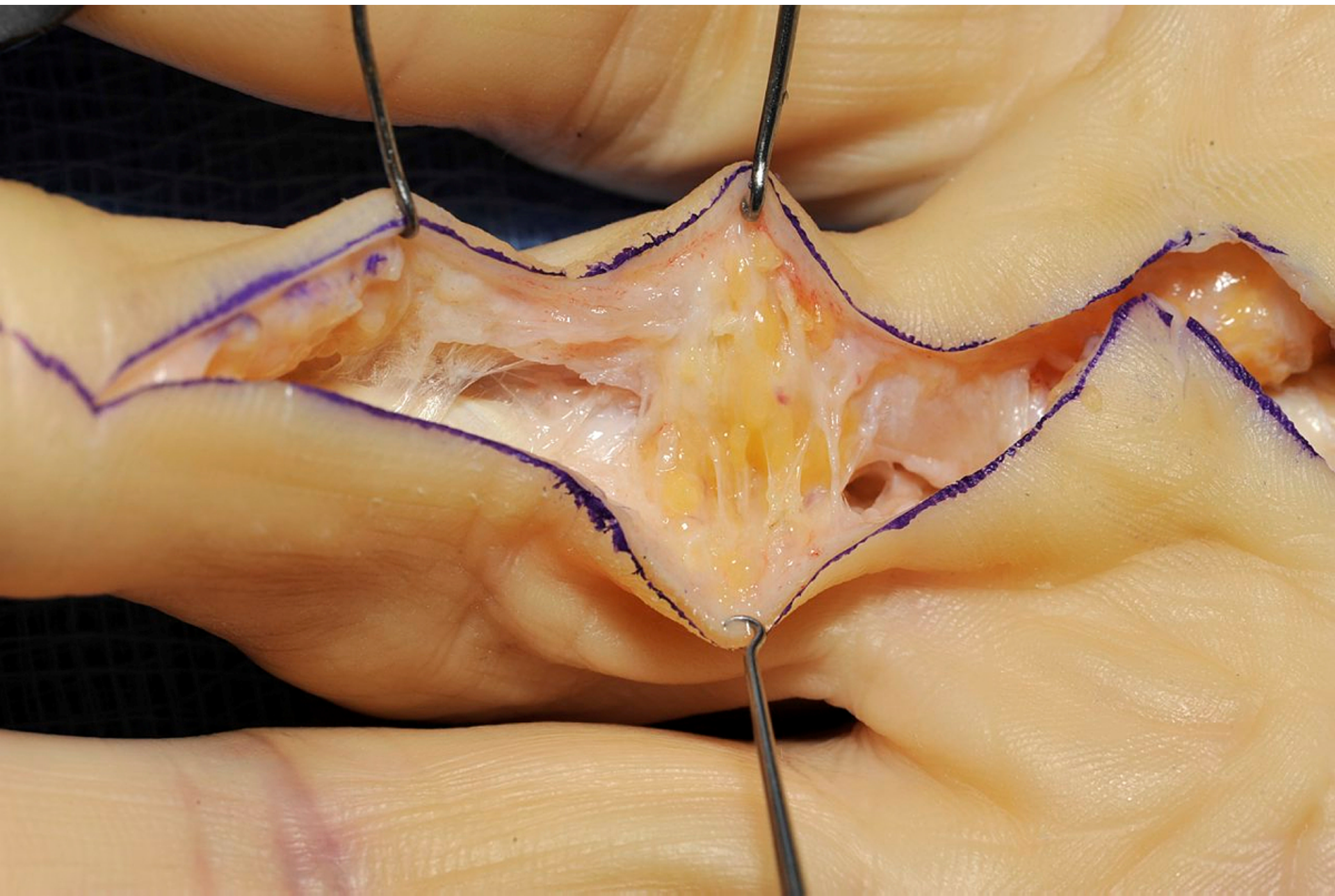


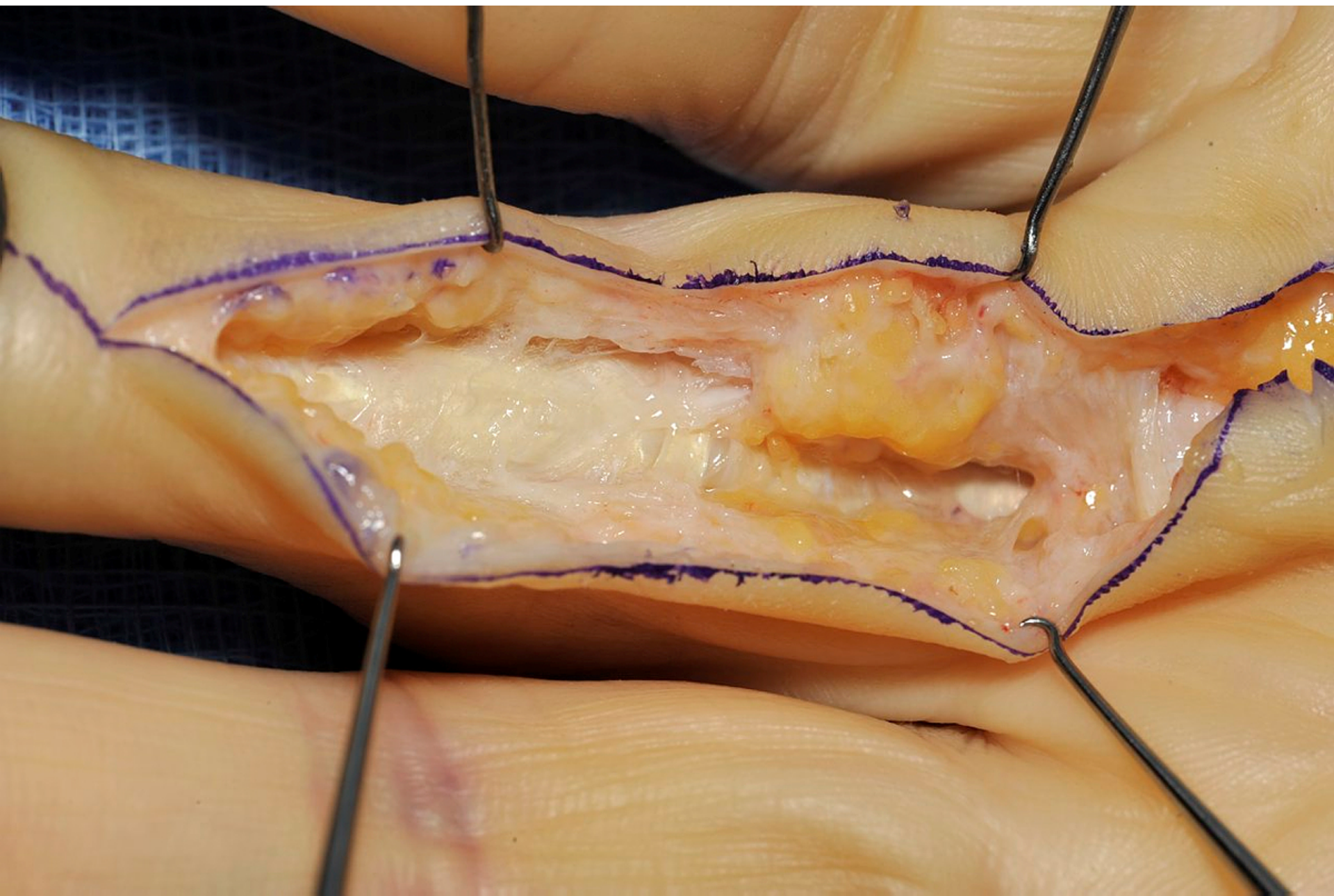


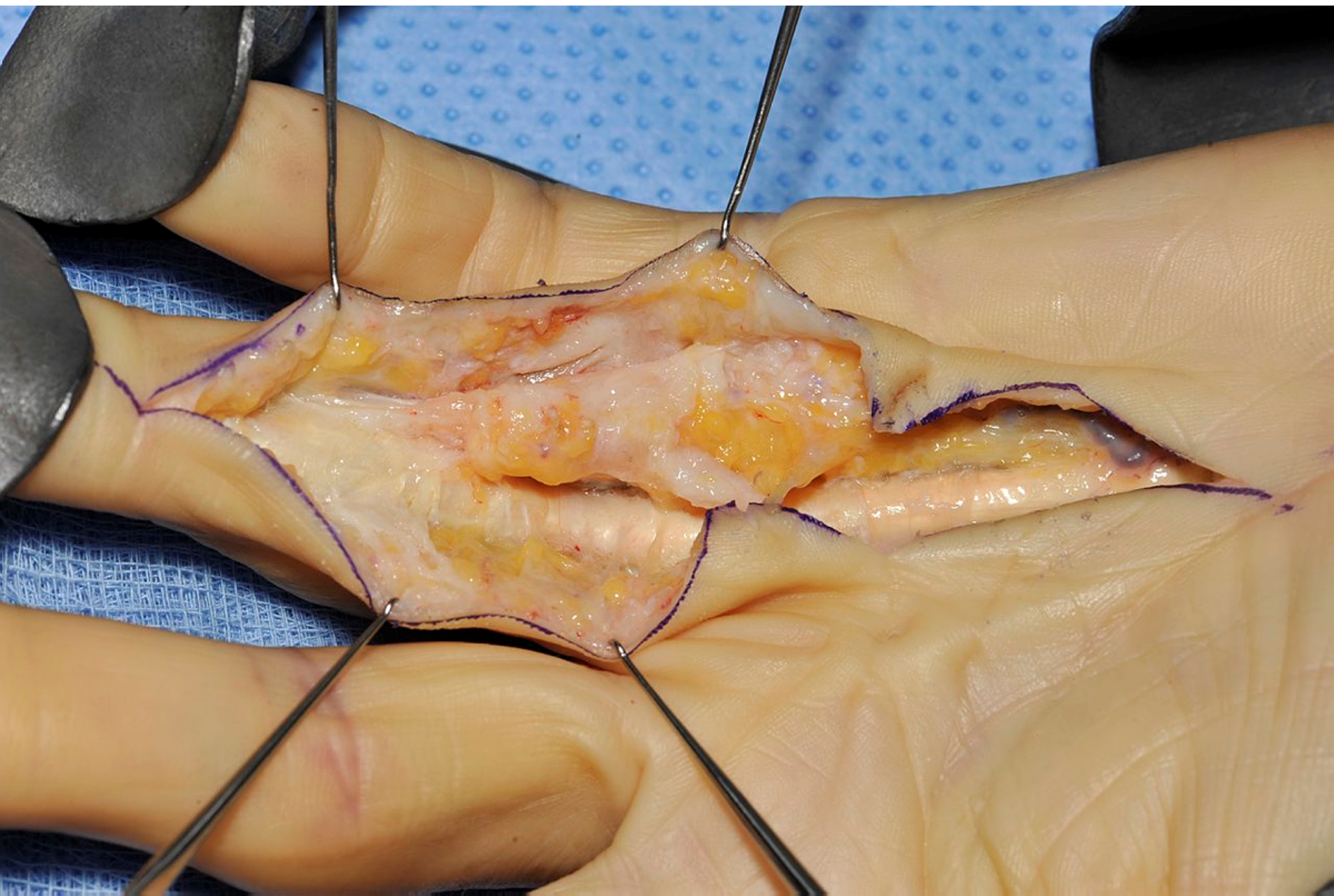


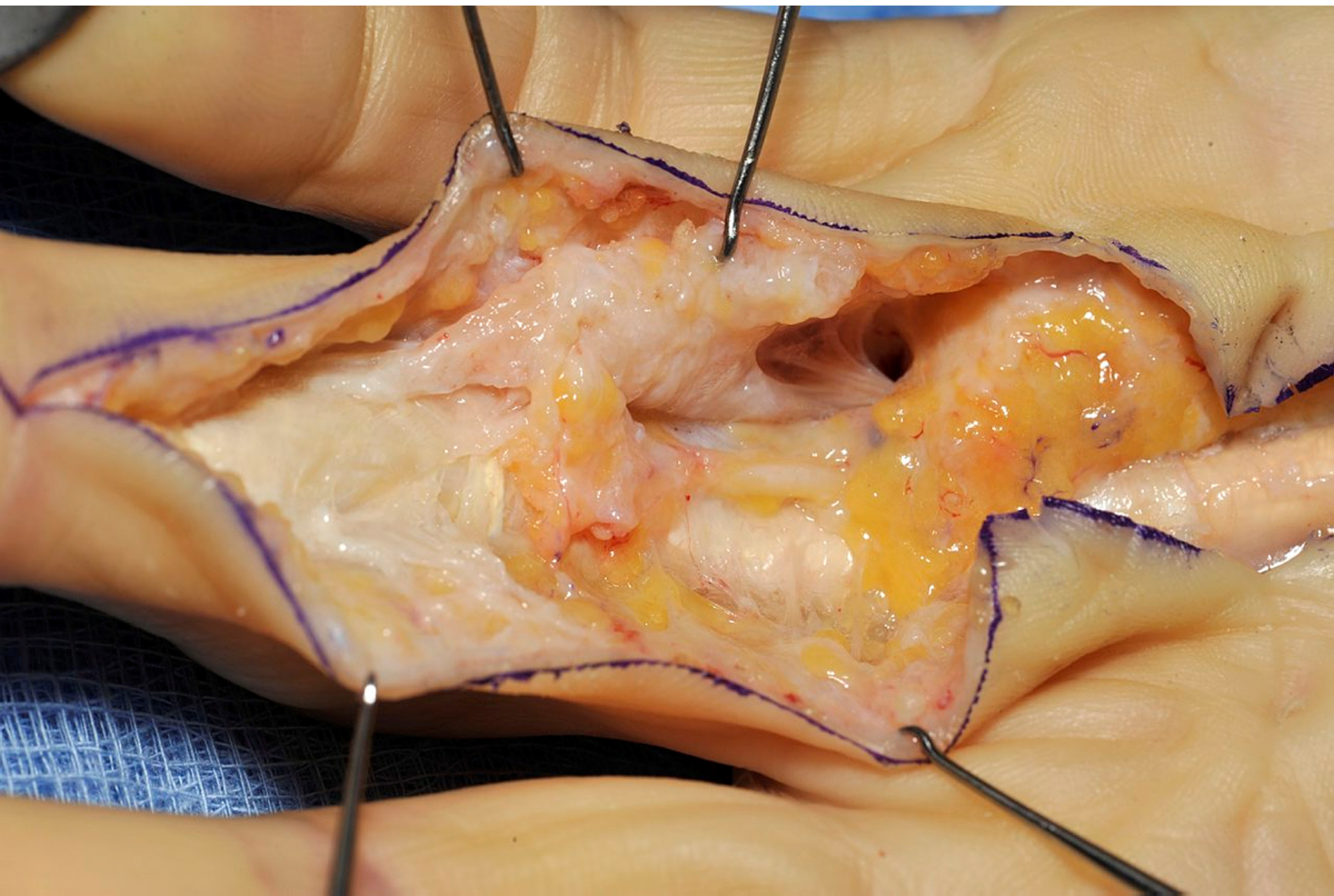


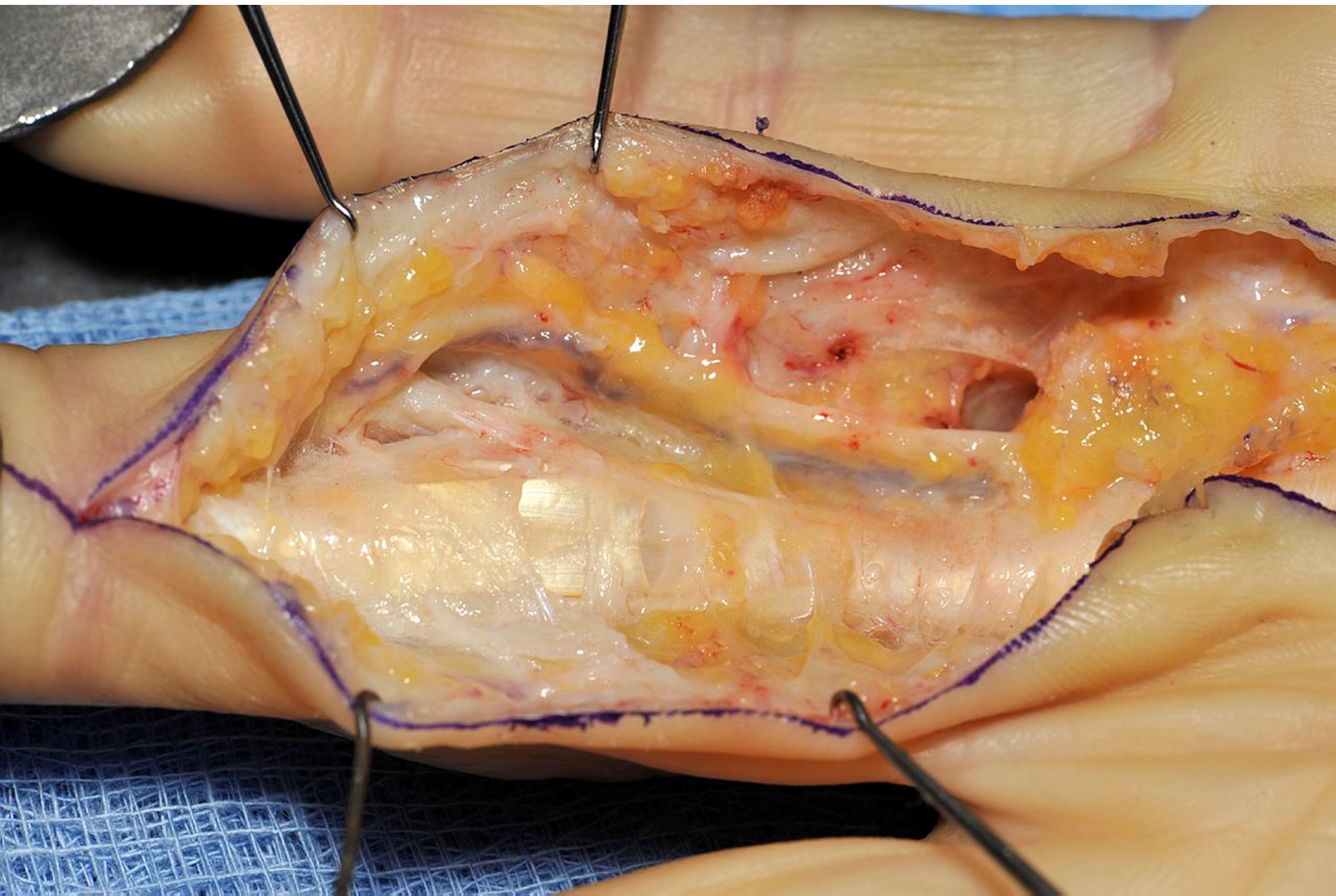


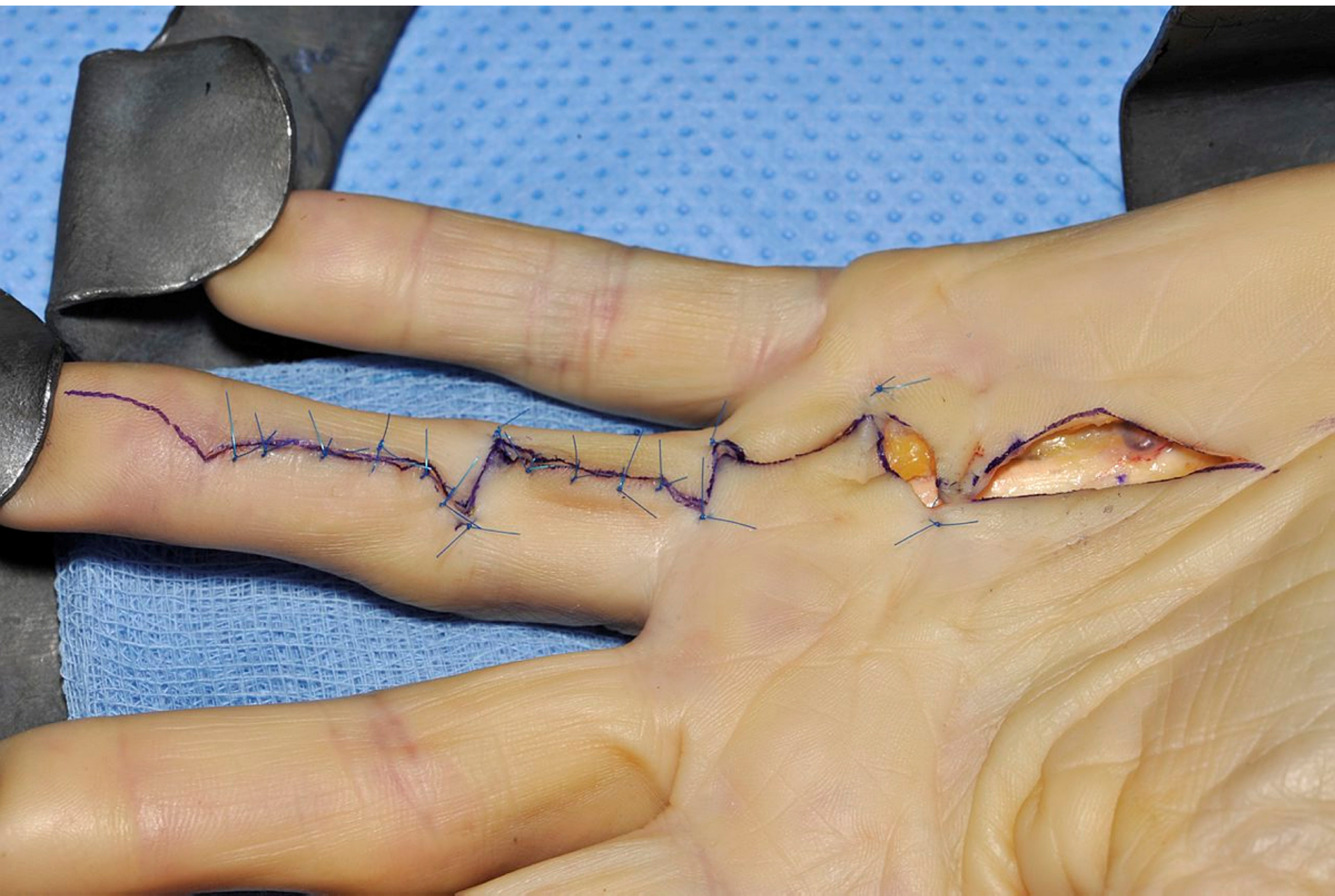












Nerves



29 year old female

19/08/13 Attendance at Minor Injury Unit, XXXXXX Hospital 23.22

Presenting complaint – Lac left thumb Diagnosis – wound

23.50 hand written note Jxxxxx ENP

[illegible]

1 hour ago cutting bread, rolling with ceramic knife Cut thumb

Hx/ thyroid problems ABX thyroid

Allergies nil

SH lives with boyfriend who has brought in..... unreadable

On examination – palm side IPJ large flap Fatty tissue exposed

FDP *and* *FDS*

Anxious

Rx — *cleansed....*

Digital block of 2mls 1%

Closed in with 8 x 4/0

Entonox *needed* *post*

$$2 \qquad x$$

FDP + *FDS* *rechecked* –

Dressed with Gauze and

Plan – *wound* *care* *advice*

See 1/7 Signature —

HISTORY & EXAMINATION CONTINUED:	
Date & Time	<ul style="list-style-type: none"> - FDP & FDS intact. - Anxias + +
	<p>Rx/ changed ball</p> <ul style="list-style-type: none"> - Digital to look at Jaws 1st degree - closed i. 8x 4.0 sutures - Entonox needed post op. - 2x Steri-strips - FDP & FDS re-checked → intact - dressed i. abdomen, gavage and bandage
	<p>Plan / - wound care advice sheet ✓</p> <ul style="list-style-type: none"> - see 1/7
	<p><i>MZ</i> EWP</p>

20.8.13

22.30

- Reduced distal sensation
- wound
- FDS & FDP
- warm no unexpected swelling
Rx Abru_men(?) gauze tubinette
Plan Practice nurse for wound check
23.8.13 Again
27.8.13

Temp

20.8.13	Review
22.30	36.7 Temp = 36.7°
- Reduced distal sensation	but Reduced distal sensation but
- wound	sore wound sore.
- FDS & FDP	intact FPD & FDS intact
- warm no unexpected swelling	warm. No unexpected swelling
Rx Abru_men(?) gauze tubinette	Plan / Abru_men, gauze, tubinette 12
Plan Practice nurse for wound check	Plan / - Practice nurse for wound check
23.8.13	for ROS 23.8.13 Again for ROS
27.8.13	27.8.13
DECLARATION	
[Signature] EMP	

neurological injury during surgery?

language/01

Name of proposed procedure or course of treatment (include brief explanation if medical term not clear)

Open reduction internal fixation left wrist

Statement of health professional (to be filled in by health professional with appropriate knowledge of proposed procedure, as specified in consent policy)

I have explained the procedure to the patient. In particular, I have explained:

The intended benefits: Pain relief, healing

Significant, unavoidable or frequently occurring risks: Pain, swelling, scar, immobility, nerve damage, bleeding, infection, DVT, fracture, death

Any extra procedures which may become necessary during the procedure

☒ blood transfusion

☒ other procedure (please specify) Carpal tunnel release

I have also discussed what the procedure is likely to involve, the benefits and risks of any available alternative treatments (including no treatment) and any particular concerns of this patient.

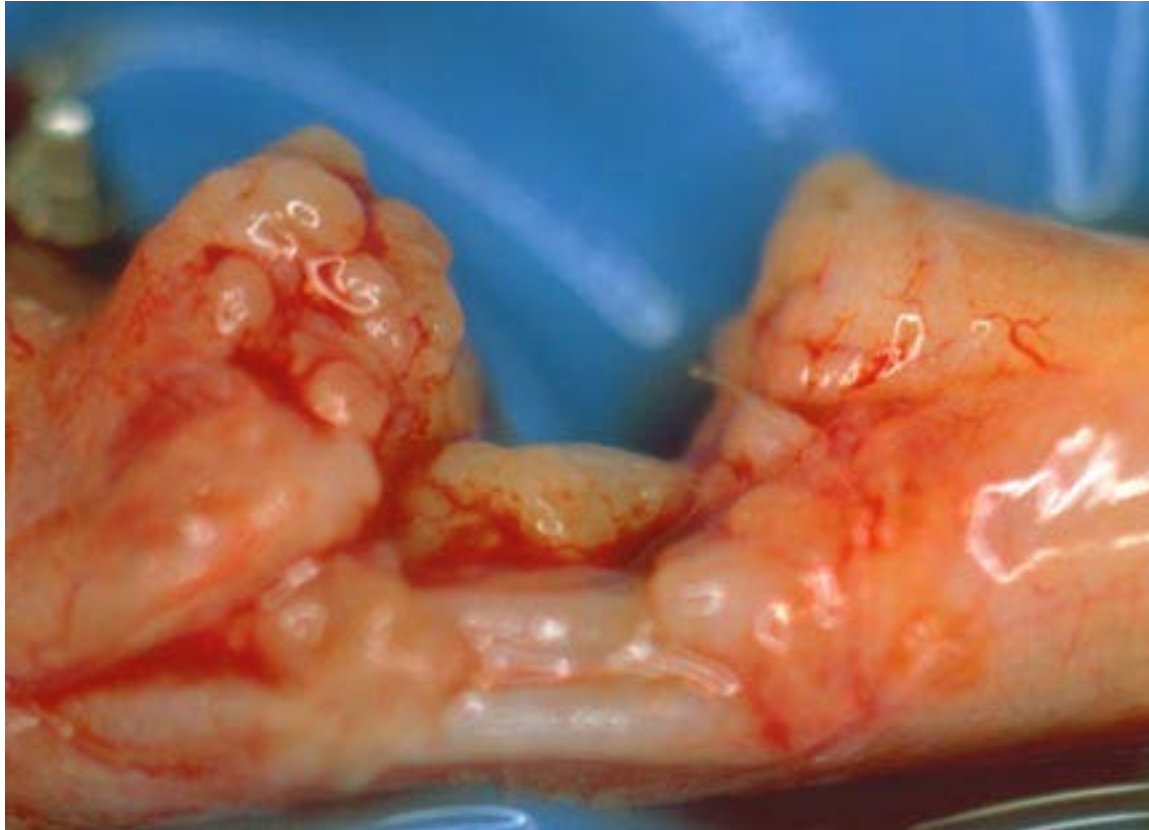
☐ The following leaflet/tape has been provided

This procedure will involve:

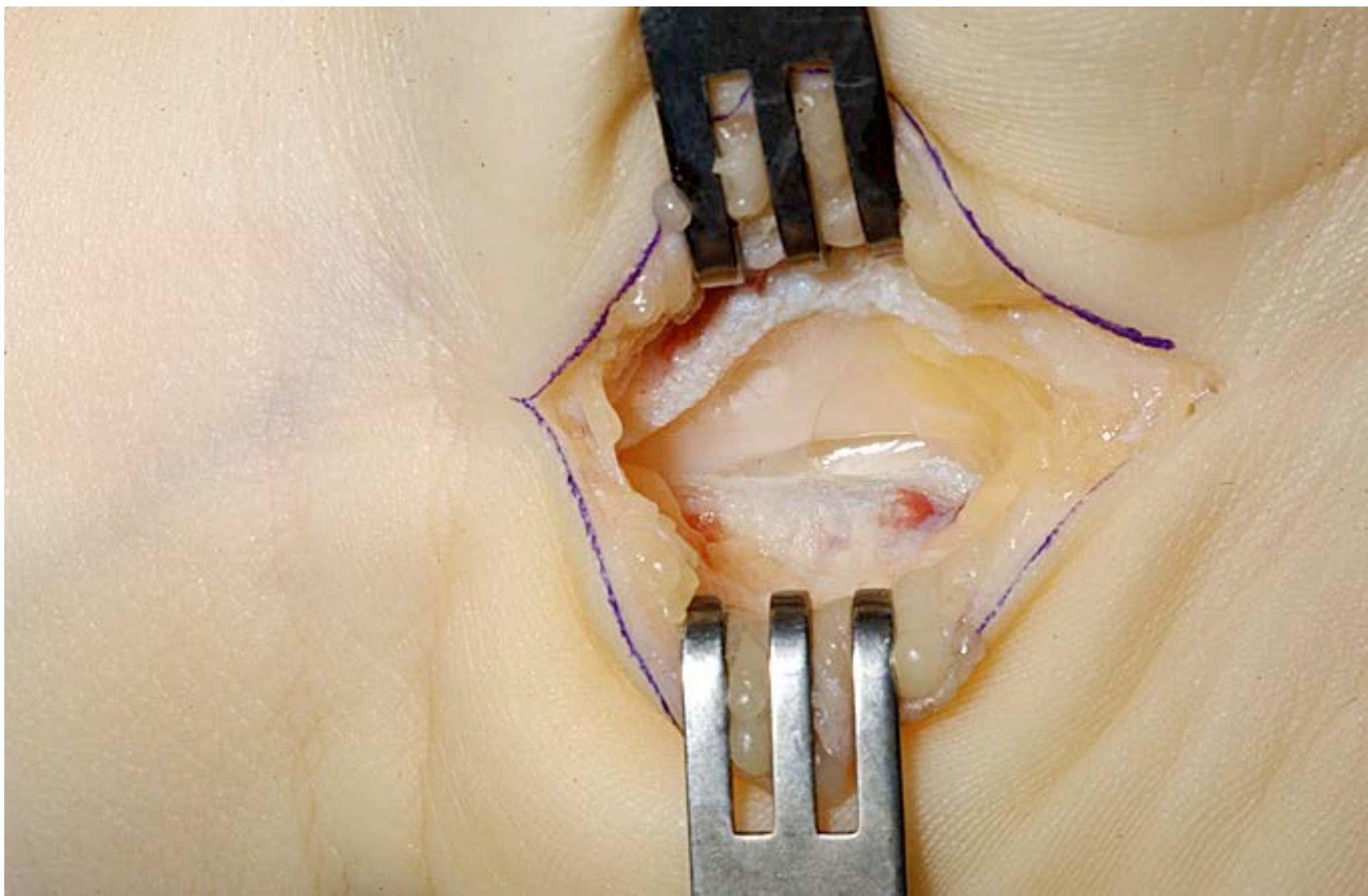
☒ general and/or regional anaesthesia

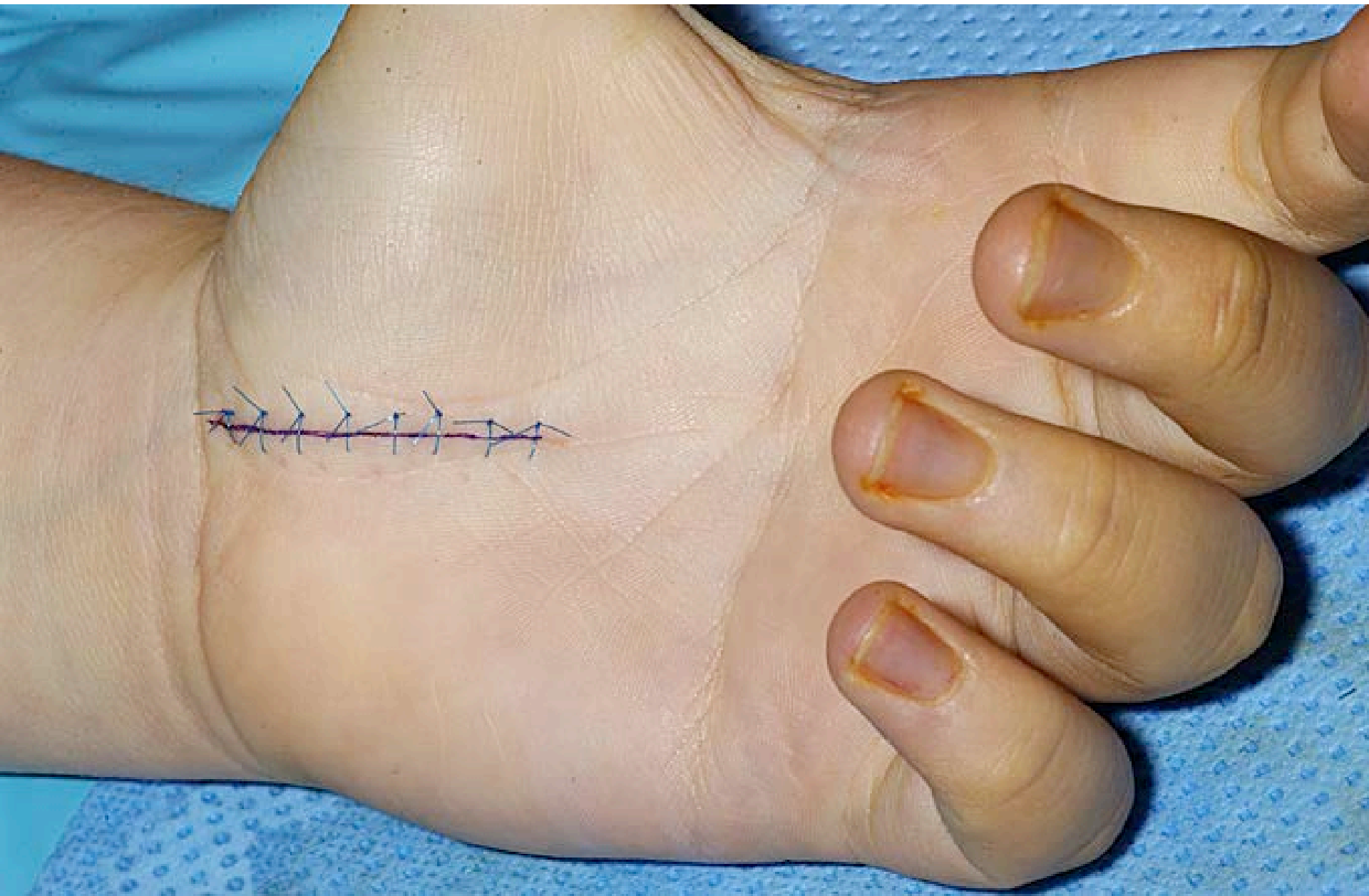
☐ local anaesthesia

neurological injury during surgery?



Carpal Tunnel Syndrome







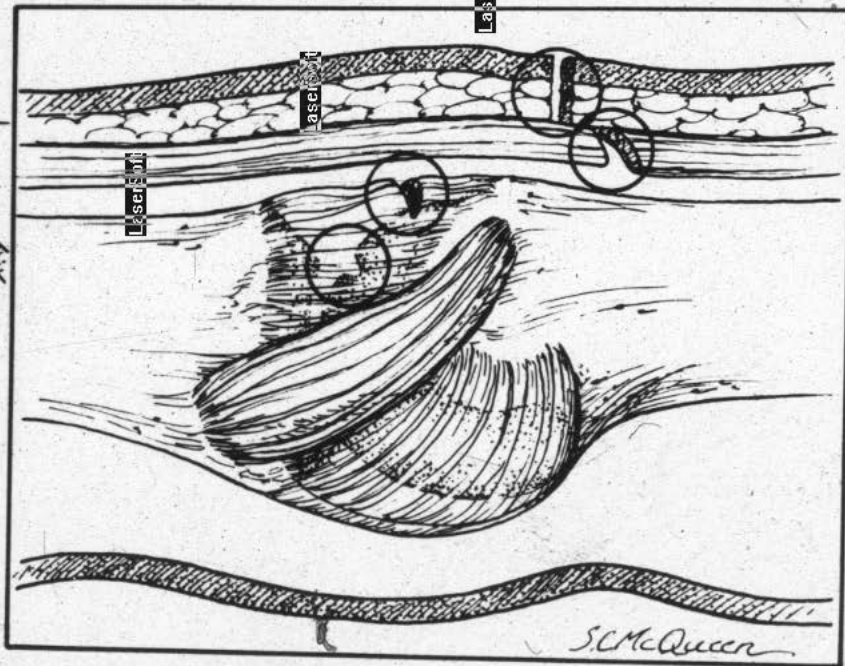


Injuries to the MCP Joint of the Thumb

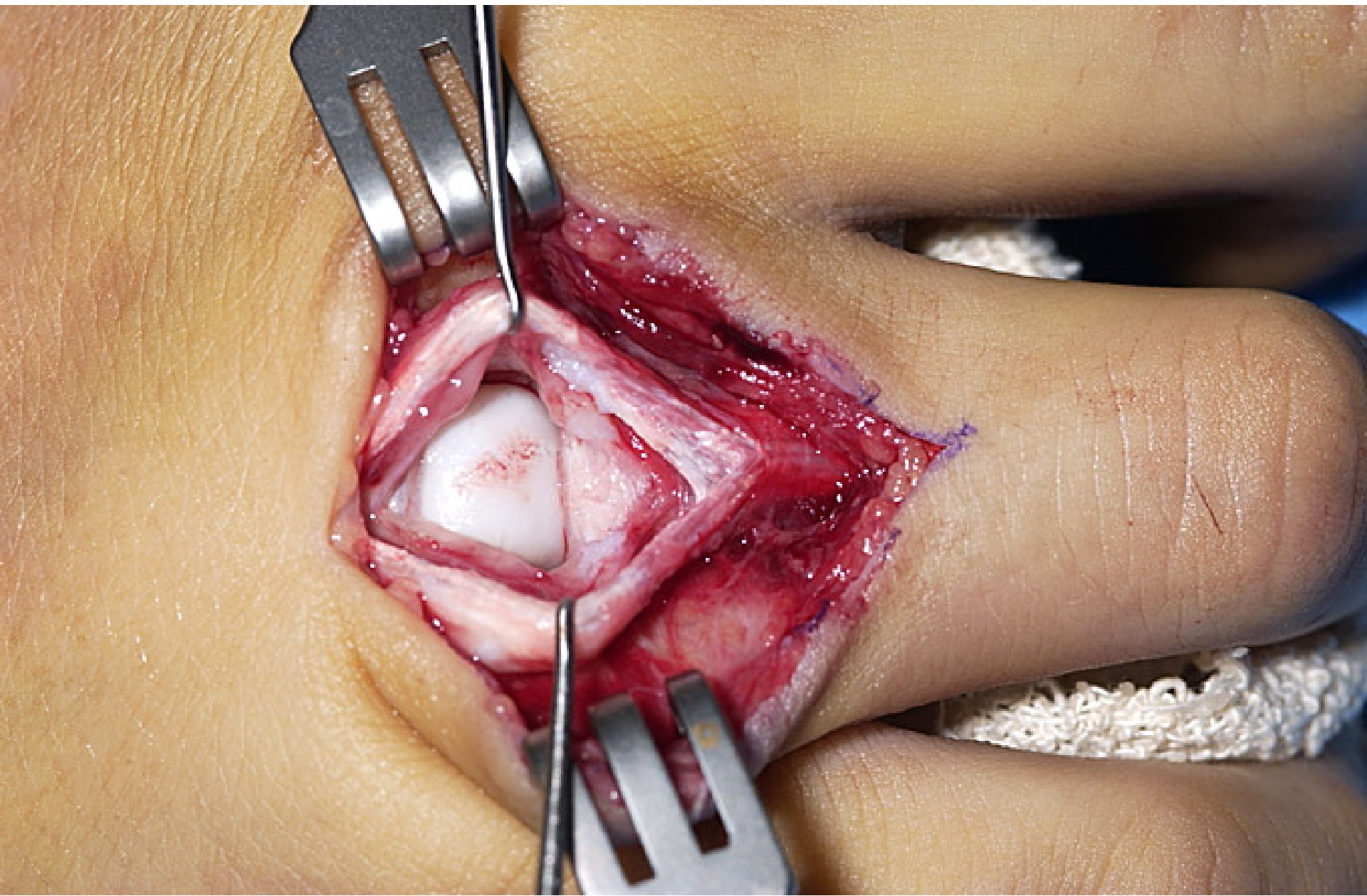




Tendon
Capsule









Factitious Disease



Factitious Disease

Dysfunctional postures

Feigned illness

Non healing wounds

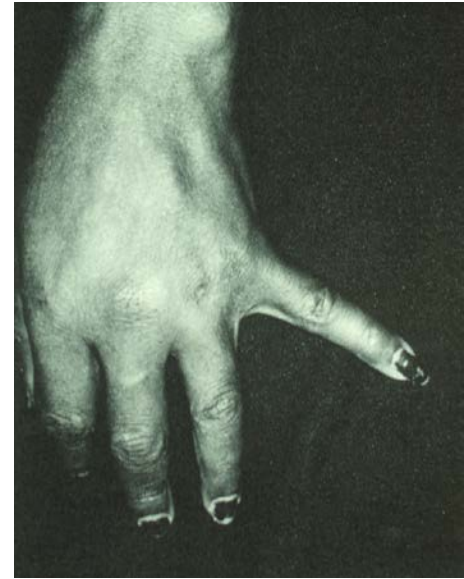
Self harm:

Burns

Cuts

Foreign bodies

Tourniquets



Factitious Disease

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Factitious Disease

Dysfunctional postures

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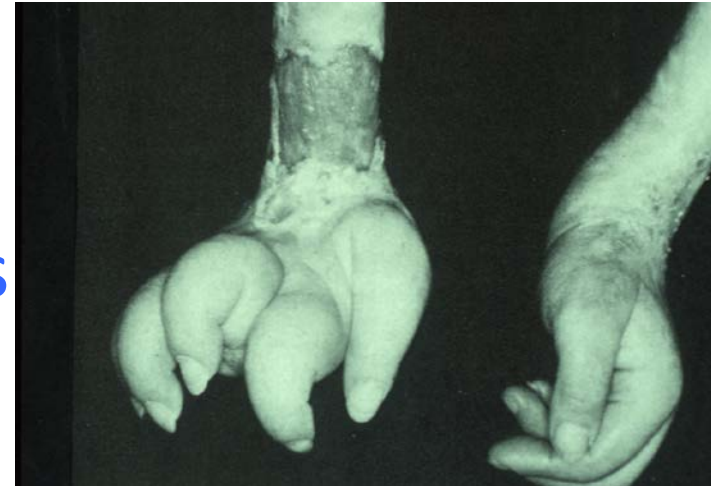
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Factitious Disease

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Self harm:

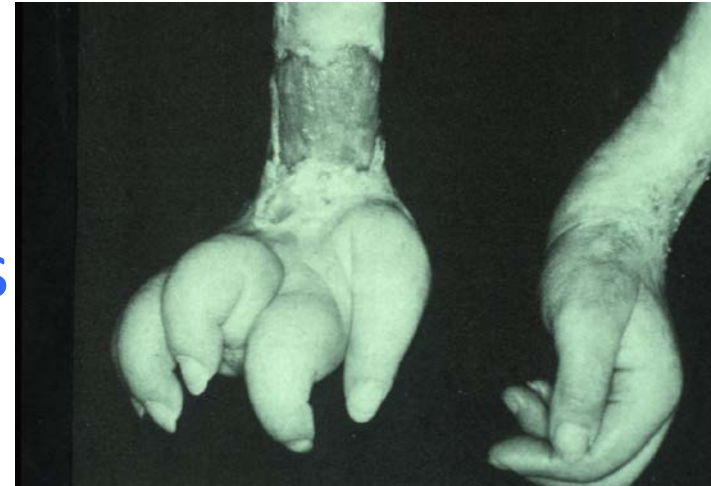
Burns

Cuts

Foreign bodies

Tourniquets

Transference



Report





