Practical training № 7


**Relevance of the topic:** treatment of the inflammatory processes and injuries of the elbow joint and forearm oblige the doctor to know the topography of the neurovascular formations of these regions. Fingers and hand are often injured because of traumas and different diseases. Treatment of the purulent and inflammative diseases is one most difficult problems of the medicine. Ankylosis, deformations and amputations of the fingers and phalanges is the most often result of the treatment of the felon. Each doctor that treats the diseases and injuries of the finger or hand, first of all, has to study the topographical anatomy of this region very well.

**Purpose of the lesson:**

1. Study surgical anatomy of the elbow fossa, elbow joint and forearm.
2. Master the technique of punction, arthrotomy and resection of the elbow joint.
3. Learn the symptoms of the injuries of the median, ulnar and radial nerves.
4. Justify the ways of spreading of the inflammatory processes at the phlegmons of the forearm and perform cuts for their drainage.
5. Study the topographical anatomy of the wrist and hand region.
6. Study the features of the formation of the canals, synovial vaginas and bags of tendons of flexors and extensors of the hand and fingers.
7. Master the technique of the surgical treatment of the different forms of the felon.
8. Justify the ways of spreading of the purulent and inflammative processes and be able to perform the dissections for their drainage at the phlegmons of the hand.
9. Give the topographical and anatomical justification of the functional and sensitive disorders of the hand at the injuries of the major nerve trunks.
10. Master the technique of the conductive blockade of the median, ulnar and radial nerves.
11. Study the technique of the conductive blockade by Lukashevich-Oberst and by Brown-Usoltseva.

**Control questions:**

1. Topographical anatomy of the elbow region. Fascial compartments and their content.
2. Topographical anatomy of the elbow fossa. Surgical anatomy of the medial and lateral neurovascular bunches.
3. Surgical anatomy of the elbow joint. Weak places of the capsule of the elbow joint and the ways of spreading of the periarticular phlegmons.
5. Topographical anatomy of the anterior region of the forearm.
6. Surgical anatomy of the neurovascular formations of the anterior region of the forearm.
7. Surgical anatomy of the cellular spaces of the anterior region of the forearm and cuts for their drainage.
8. Topographical anatomy of the posterior region of the forearm.
10. Topographical anatomy of the palm.
11. Surgical anatomy of the fascial compartments and cellular spaces, their content and connections.
12. Surgical anatomy of the synovial vaginas and bags of the tendons of flexors of fingers.
14. Topographical and anatomical features of the dissections at tendosynovitis, tendobursitis and phlegmons of the hand.
15. Functional and sensitive disorders of the hand at injuries of the major nerve trunks of the upper extremity.
16. Technique of the conductive blockades of the median, ulnar and radial nerves.

**Practical skills:**

1. Show on the body:
   - v. basilica, v. cephalica, v. intermedia cubiti and nerves that accompany them
   - sulcus cubitales anteriores lateralis et medialis
   - medial, lateral and median fascial compartments of the elbow region and their content
   - muscles that limit the elbow fossa
   - medial and lateral neurovascular bunches of the elbow region
   - anterior, lateral and posterior osteofascial compartments of the forearm and their content
   - sulcus radialis, sulcus medians and sulcus ulnaris antebrachii
   - canalis supinatorius and its content
   - radial, ulnar, median and anterior interosseal neurovascular bunches
   - rete articulare cubiti
   - cellular space of Pirogov-Parona
2. Perform on the body:
   - punction, arthrotomy and resection of the elbow joint
   - cuts for the drainage of the phlegmons of the forearm
3. Show on the body:
   - canalis carpi, its walls, content and connections
- canalis carpi ulnaris and its content
- canalis carpi radialis and its content
- “anatomical snuffbox”, its limits and content
- canals and synovial bags of the tendons of extensors of the hand and fingers
- fascial compartments of the palm and their content
- cellular spaces of the medial fascial compartment of the palm, its content and connections
- superficial and deep arterial arcs
- common and own palmar arteries and nerves of the fingers

4. Perform on the body:

- conductive anesthesia by Lukashevich-Oberst
- conductive anesthesia by Brown-Usoltseva
- conductive anesthesia of the median, ulnar and racial nerves
- dissection of the felon
- dissections at the tendinous felon
- dissections at the phlegmons of the hand
- dissections for the disclosure of the Pirogov-Parona space
- dissections for the disclosure of the subfascial phlegmons of the thenar and hypothenar compartments
Computer questions for the practical training № 7


1. What is situated in subcutaneous tissue of the front part of the elbow?
2. What is situated in lateral fascial sheath of the front part of the elbow?
3. What is situated in medium fascial sheath of the front part of the elbow?
4. What is situated in medial fascial sheath of the front part of the elbow?
5. What is antecubital fossa terminated by?
6. What is situated in subcutaneous tissue of the antecubital fossa?
7. Name elements of medial neurovascular fascicle of antecubital fossa
8. Name elements of lateral neurovascular fascicle of antecubital fossa
9. Which arteries create anastomosis in sulcus cubitalis anterior medialis and take part in creation of rete articulare cubiti?
10. Which arteries create anastomosis in sulcus cubitalis anterior lateralis?
11. Which arteries create anastomosis in sulcus cubitalis posterior medialis?
12. Which arteries create anastomosis in sulcus cubitalis posterior lateralis?
13. What is situated in subcutaneous tissue of the front part of the forearm?
14. What is situated in lateral osteal-fibrous sheath of the front part of the forearm?
15. What is radial sulcus made by?
16. Name the projecting line of radial artery
17. What happens if the radial nerve is damaged?
18. Name the first layer of muscles of the front sheath of forearm
19. Name the second layer of muscles of the front sheath of forearm
20. Name the third layer of muscles of the front sheath of forearm
21. Name the fourth layer of muscles of the front sheath of forearm
22. Name neurovascular fascicle of front osteal-fibrous sheath of forearm
23. What median neurovascular fascicle of forearm consists of?
24. What front interosseos neurovascular fascicle of forearm consists of?
25. Between which muscles median nerve of the middle third of forearm is situated?
26. Between which muscles median nerve of the lower third of forearm is situated?
27. What happens if the median nerve is damaged?
28. Name the projecting line of median nerve
29. Between which muscles ulnar neurovascular fascicle is situated?
30. What happens if ulnar nerve is damaged?
31. Name the projecting line of ulnar artery
32. Between which muscles tissue space of Pirogov-Parona is situated?
33. What incision is done to drain tissue space of Pirogov-Parona?
34. What is situated in subcutaneous tissue of the back part of forearm?
35. Name the muscles of the surface layer of the back part of forearm
36. Name the muscles of the deep layer of the back part of forearm
37. What is situated in tissue between surface and deep muscles of the back part of the forearm?
38. Name the point of puncture by needle for blockade of ulnar nerve for operations on hands
39. Name the point of puncture by needle for blockade of radial nerve for operations on hands
40. Name the point of puncture by needle for blockade of median nerve for operations on hands
41. Name joint surfaces of art. humeroulnaris
42. Name joint surfaces of art. humeroradialis
43. Name joint surfaces of art. radioulnaris proximalis
44. Name ligaments that strengthen ulnar joint
45. Name nerves that can be damaged by comminuted fractures of ulnar joint
46. Where does the radial nerve divide into surface and deep branches?
47. Which nerve can be damaged by fracture of radial bone at the area of its neck?
48. What happens if the radial nerve is damaged?
49. What happens if the median nerve is damaged?
50. What happens if ulnar nerve is damaged?
51. Name the projecting line of ulnar artery
52. Between which muscles tissue space of Pirogov-Parona is situated?
53. What incision is done to drain tissue space of Pirogov-Parona?
54. What is situated in subcutaneous tissue of the palm surface of fingers and hand?
55. What is situated in carpal canal?
56. What is situated in Guyon’s canal?
57. What is situated in canalis carpi radialis?
58. What is middle fascial sheath of palm limited by in front?
59. What is middle fascial sheath of palm limited by at the back?
60. What divides middle fascial sheath of the palm into surface and deep parts?
61. What is situated in tissue of surface part of middle fascial sheath of the palm?
62. What is situated in tissue of deep part of middle fascial sheath of the palm?
63. Name the projecting line of surface palm arch
64. What muscles thenar are innervated by the median nerve?
65. What muscles thenar are innervated by the ulnar nerve?
66. Name the contents of ulnar fascial sheath of palm
67. Name the contents of external fascial sheath of palm
68. What incision is done to drain phlegmons of medial tissue space of palm?
69. Where do they do incisions to patients with phlegmons of medial tissue space of palm?
70. What creates superficial palm arch?
71. What creates deep palm arch?
72. Name the authors of nerve block anesthesia for operations on fingers and hands?
73. What is situated in canal of supinator?
74. Name the point of puncture by needle for blockade of ulnar nerve for operations on hands
75. Name the point of puncture by needle for blockade of radial nerve for operations on hands
76. Name the point of puncture by needle for blockade of median nerve for operations on hands
77. Which layers differentiate synovial membrane of sinews of finger flexors?
78. What is being created in the area of duplication synovial membrane?
79. Name the length of synovial sheath for II, III, IV fingers of hand
80. Where can pus spread to during tendobursitis of V finger?
81. Where are incisions done during tendovaginitis of II, III and IV fingers?
82. Where are incisions done during tendovaginitis of I and V fingers?
83. Which muscles limite “anatomical snuffbox” from the front and exterior?
84. Sinews of which muscle limit “anatomical snuffbox” from the back?
85. What lies in subcutaneous tissue of the base of “anatomical snuffbox”?
86. Which arteria enters “anatomical snuffbox”?
87. What lies at the first fibrous canal of the back area of wrist?
88. What lies at the second fibrous canal of the back area of wrist?
89. What lies at the third fibrous canal of the back area of wrist?
90. What lies at the fourth fibrous canal of the back area of wrist?
91. What lies at the fifth fibrous canal of the back area of wrist?
92. What lies at the sixth fibrous canal of the back area of wrist?
93. What lies at subcutaneous tissue of the front area of wrist?
94. What is carpal canal formed by?
95. What is canalis carpi radialis formed by?
96. What lies in subcutaneous tissue of the back area of wrist?
What is situated in lateral osteal
N.cutaneus antebrachii posterior, lateralis et medialis, n.cutaneus antebrauchi lateralis, v.intermedia cubiti
#V.cephalica, n.n.supraclavicularares, n.cutaneus brachii lateralis superior, n.cutaneus brachii medialis
V. basilica, n.cutaneus brachii lateralis inferior, n.cutaneus brachii posterior, n.axillaris
V.mediana antebrachii, v.basilica, n.cutaneus antebrachii medialis, vcephalica, n.cutaneus antebrachii lateralis, r.palmaris
n.medianus, r.cutaneus palmaris n.ulnaris
What is situated in lateral fascial sheath of the front part of the elbow?
M.brachioradialis, m.extensor carpi radialis longus, m.extensor carpi radialis brevis, n.radialis, a.collateralis radialis, a.recurrens radialis, m.supinator
#A. et v.radialis, v.cephalica, n.cutaneus antebrachii lateralis
M.pronator teres, m.flexor carpi radialis, m.flexor carpi ulnaris, m.palmarius longus, m.flexor digitorum superficialis, m.flexor digitorum profundus, a. et. v.v. brachiales, n.medianus
Sinew of m.biceps brachii, m.brachialis
What is situated in medium fascial sheath of the front part of the elbow?
Sinew of m.biceps brachii, m.brachialis
#M.pronator teres, m.flexor carpi radialis, m.flexor carpi ulnaris, m.palmarius longus, m.flexor digitorum superficialis, m.flexor digitorum profundus, a. et. v.v. brachiales, n.medianus
M.brachioradialis, m.extensor carpi radialis longus, m.extensor carpi radialis brevis, n.radialis, a.collateralis radialis, a.recurrens radialis, m.supinator
A. et v.radialis, v.cephalica, n.cutaneus antebrachii lateralis
Sinew of m.biceps brachii, m.brachialis
What is antecubital fossa terminated by?
Sinew of m.biceps brachii, m.brachialis
digitorum profundus, a. et. v.v. brachiales, n.medianus
M.pronator teres, m.flexor carpi radialis, m.flexor carpi ulnaris, m.palmarius longus, m.flexor digitorum superficialis, m.flexor digitorum profundus, a. et. v.v. brachiales, n.medianus
What is situated in subcutaneous tissue of the front part of the elbow?
Sinew of m.biceps brachii, m.brachialis
What is situated in subcutaneous tissue of the front part of the elbow?
M.pronator teres, m.flexor carpi radialis, m.flexor carpi ulnaris, m.palmarius longus, m.flexor digitorum superficialis, m.flexor digitorum profundus, a. et. v.v. brachiales, n.medianus
#M.brachioradialis, m.extensor carpi radialis longus, m.extensor carpi radialis brevis, n.radialis, a.collateralis radialis, a.recurrens radialis, m.supinator
A. et v.radialis, v.cephalica, n.cutaneus antebrachii lateralis
Medial and lateral neurovascular fascicle
#A.brachialis
N.medianus
Front and back neurovascular fascicle
Name elements of medial neurovascular fascicle of antecubital fossa:
A.brachialis, v.v.brachiales, n.medianus
#N.ulnaris, a.collateralis ulnaris superior, a.collateralis ulnaris inferior
N.radialis,a.collateralis radialis, a.recurrens radialis
N.medianus, a. et v.comitans n.mediani
Name elements of lateral neurovascular fascicle of antecubital fossa:
N.radialis,a.collateralis radialis, a.recurrens radialis
#A.radialis, v.v.radiales
A.brachialis, v.v.brachiales, n.medianus
N.ulnaris, a.collateralis ulnaris superior, a.collateralis ulnaris inferior
Which arteries create anastomosis in sulcus cubitalis anterior medialis and take part in creation of rete articulare cubiti?
A.collateralis ulnaris inferior and ramus anterior a.recurrens ulnaris
#A.collateralis ulnaris superior and ramus posterior a.recurrens ulnaris
A.collateralis media and a.interossea recurrens
A.collateralis radialis and a.recurrens radialis
Which arteries create anastomosis in sulcus cubitalis anterior lateralis?
A.collateralis radialis and a.recurrens radialis
#A.collateralis media and a.interossea recurrens
A.collateralis ulnaris superior and ramus anterior a.recurrens ulnaris
Which arteries create anastomosis in sulcus cubitalis posterior medialis?
A.collateralis ulnaris superior and ramus posterior a.recurrens ulnaris
#A.collateralis ulnaris inferior and ramus anterior a.recurrens ulnaris
A.collateralis media and a.interossea recurrens
A.collateralis radialis and a.recurrens radialis
Which arteries create anastomosis in sulcus cubitalis posterior lateralis?
A.collateralis media and a.interossea recurrens
#A.collateralis radialis and a.recurrens radialis
A.collateralis ulnaris superior and ramus posterior a.recurrens ulnaris
A.collateralis radialis and a.recurrens radialis
What is situated in subcutaneous tissue of the front part of the forearm?
V.mediana antebrachii, v.basilica, n.cutaneus antebrachii medialis et lateralis, vcephalica, r.palmaris n.medianus, r.cutaneus palmaris n.ulnaris
#V.basilica, n.cutaneus antebrachii medialis, n.intercostobrachialis, nodi lymphatici cubitalis superficialis, vcephalica, n.cutaneus antebrachii lateralis, v.intermedia cubiti
M.brachioradialis n.radialis, a.collateralis radialis, a.recurrens radialis, a. et v.radialis, v.cephalica, n.cutaneus antebrachii lateralis
N.cutaneus antebrachii posterior, lateralis et medialis, n.cutaneus brachii posterior, r.superficialis n.radialis, r.dorsalis n.ulnaris
What is situated in lateral osteal-fibrous sheath of the front part of forearm?
M.brachioradialis, m.extensor carpi radialis longus, m.extensor carpi radialis brevis, a.radialis, v.v.radiales, r.superficialis n.radialis
#N.radialis
R.profundus n.radialis
V.mediana antebrachii, v.basilica, n.cutaneus antebrachii medialis, v.cephalica, n.cutaneus antebrachii lateralis, r.palmaris n.medianus, r.cutaneus palmaris n.ulnaris

!What is radial sulcus made by?
M.brachioradialis, m.pronator teres, m.flexor carpi radialis
#M.flexor digitorum superficialis, m.palmaris longus
M.flexor carpi ulnaris et m.flexor carpi radialis
M.flexor digitorum superficialis et m.flexor digitorum profundus

!Name the projecting line of radial artery:
Along the line drawn from the middle of antecubital fossa to pulse point
#Along the line drawn from the middle of antecubital fossa to styloid process of radius
From medial epicondyle to styloid process of radius
What happens if the radial nerve is damaged?
Inability to straighten out hand and fingers, drop hand, inability of abduction of the thumb, hand looks like “seal foot”
#Atrophy of deltoid muscle, inability to rise shoulder in frontal plane to horizontal level, anesthesia of external part of shoulder
Inability to fold I, II, III fingers into fist, disorder of sensibility of palm surface of I-III fingers, hand looks like “monkey hand”
Inability to fold IV and V fingers, inability of adduction of IV and V fingers, hand looks like “clawed hand”, fingers are sharply unbent in main phalanges and the rest are bent.

!Name the first layer of muscles of the front sheath of forearm:
M.pronator teres, m.flexor carpi radialis, m.palmaris longus, m.flexor carpi ulnaris
#M.brachioradialis, m.extensor carpi radialis longus, m.extensor carpi radialis brevis, m.flexor digitorum superficialis
M.flexor digitorum profundus, m.flexor pollicis longus
M.flexor digitorum superficialis

!Name the second layer of muscles of the front sheath of forearm:
M.flexor digitorum superficialis
#M.flexor digitorum profundus, m.flexor pollicis longus, m.pronator teres
M.pronator teres, m.flexor carpi radialis, m.palmaris longus, m.flexor carpi ulnaris
M.brachioradialis, m.extensor carpi radialis longus, m.extensor carpi radialis brevis, m.flexor digitorum superficialis

!Name the third layer of muscles of the front sheath of forearm:
M.flexor digitorum profundus, m.flexor pollicis longus
#M.flexor digitorum superficialis
M.pronator quadratus
M.palmaris longus

!Name the fourth layer of muscles of the front sheath of forearm:
M.pronator quadratus
#M.flexor digitorum profundus
M.palmaris longus
M.flexor pollicis longus

!Name neurovascular fascicle of front osteal-fibrous sheath of forearm:
Median, ulnar, front interosseos
#Radial ulnar medium interosseos
N.medianus, a. et v.comitans n.mediani
A.interossea anterior, v.v.interossea anterior, n.interosseus anterior
What median neurovascular fascicle of forearm consists of?
N.medianus, a. et v.comitans n.mediani
#N. radiales, a. et v.radiales
N. ulnaris, a. et v.ulnaris
A.interossea anterior, v.v.interossea anterior, n.interosseus anterior
What front interosseos neurovascular fascicle of forearm consists of?
A.interossea anterior, v.v.interossea anterior, n.interosseus anterior
#N.medianus, a. et v.comitans n.mediani
A.brachialis, v.v.brachiales, n.medianus
N.ulnaris, a.collateralis ulnaris superior, a.collateralis ulnaris inferior
Between which muscles median nerve of the middle third of forearm is situated?
M.flexor digitorum superficialis, m.flexor digitorum profundus et m.flexor pollicis longus
#M.flexor carpi radialis et m.brachioradialis
M.flexor carpi ulnaris, m.flexor digitorum superficialis
M.flexor carpi radialis, m.flexor pollicis longus

Between which muscles median nerve of the lower third of forearm is situated?
M.flexor carpi radialis et m.flexor digitorum superficialis
#M.flexor digitorum profundus et m.flexor carpi ulnaris
M.flexor carpi ulnaris, m.flexor digitorum superficialis
M.palmaris longus, m.flexor digitorum superficialis
What happens if the median nerve is damaged?
Inability to fold I, II, III fingers into fist, disorder of sensibility of palm surface of I-III fingers, hand looks like “monkey hand”
#Inability to straighten out hand and fingers, drop hand, inability of abduction of the thumb, hand looks like “seal foot”
Atrophy of deltoid muscle, inability to rise shoulder in frontal plane to horizontal level, anesthesia of external part of shoulder
Inability to fold IV and V fingers, inability of adduction of IV and V fingers, hand looks like “clawed hand”, fingers are sharply unbent in main phalanges and the rest are bent.

!Name the projecting line of median nerve:
From the middle of antecubital fossa to the middle of radiocarpal fold
#Along the line drawn from the middle of antecubital fossa to pulse point
Along the line drawn from the middle of antecubital fossa to styloid process of radius
From medial epicondyle to pisiform bone!

Between which muscles ulnar neurovascular fascicle is situated?

M.flexor carpi ulnaris, m.flexor digitorum superficialis
#M.flexor carpi radialis, m.flexor pollicis longus
M.palmaris longus, m.flexor digitorum superficialis
M.flexor digitorum superficialis, m.flexor digitorum profundus et m.flexor pollicis longus

What happens if ulnar nerve is damaged?

Inability to fold IV and V fingers, inability of adduction of IV and V fingers, hand looks like “clawed hand”, fingers are sharply unbent in main phalanges and the rest are bent
#Inability to fold I, II, III fingers into fist, disorder of sensibility of palm surface of I-III fingers, hand looks like “monkey hand”
Inability to straighten out hand and fingers. Drop hand, inability of abduction of the thumb, hand looks like “seal foot”

Atrophy of deltoid muscle, inability to rise shoulder in frontal plane to horizontal level, anesthesia of external part of shoulder

Name the projecting line of ulnar artery:

From medial epicondyle to pisiform bone
#Along the line drawn from the middle of antecubital fossa to pulse point
Along the line drawn from the middle of antecubital fossa to styloid process of radius
From the middle of antecubital fossa to the middle of radiocarpal fold;

Between which muscles tissue space of Pirogov-Parona is situated?

M.flexor pollicis longus, m.flexor digitorum profundus, m.pronator quadratus
#M.flexor digitorum superficialis, m.flexor carpi radialis
M.flexor carpi ulnaris, m.flexor digitorum superficialis
M.flexor digitorum superficialis, m.flexor digitorum profundus, m.palmarius longus

What incision is done to drain tissue space of Pirogov-Parona?

Kanavel’s incision
#Kocher’s incision
Sokolov’s incision
Langenbeck’s incision

What is situated in subcutaneous tissue of the back part of forearm?

N.cutaneus antebrachii posterior, lateralis et medialis, n.cutaneus brachii posterior, r.superficialis n.radialis, r.dorsalis n.ulnaris
#V.mediana antebrachii, v.basalis, n.cutaneus antebrachii medialis et lateralis, v.cephalica, r.palmarius n.medianus, r.cutaneus palmaris n.ulnaris
V.basalis, n.cutaneus antebrachii medialis, n.intercostobrachialis, nodi lymphatici cubitalis superficialis, v.cephalica, n.cutaneus antebrachii lateralis, v.intermedia cubiti
M.brachioradialis n.radialis, a.collateralis radialis, a.recurrens radialis, a. et v.radialis, v.cephalica, n.cutaneus antebrachii lateralis

Name the muscles of the surface layer of the back part of forearm:

M.extensor carpi ulnaris, m.extensor digitii minimi, m.extensor digitorum
#M.supinator, m.abductor pollicis longus, m.extensor pollicis brevis, m.extensor indicis
M.flexor pollicis longus, m.flexor digitorum profundus, m.pronator quadratus
M.flexor digitorum superficialis, m.flexor pollicis longus, m.extensor pollicis brevis, m.extensor indicis
#M.extensor carpi ulnaris, m.extensor digiti minimi, m.extensor digitorum
M.flexor pollicis longus, m.flexor digitorum profundus, m.pronator quadratus
M.flexor digitorum superficialis, m.flexor digitorum profundus, m.palmarius longus

What is situated in tissue between surface and deep muscles of the back part of the forearm?

R.profundus n.radialis, a.interossea posterior, v.v.interossea posterior
#R.palmarius n.medianus, r.cutaneus palmaris n.ulnaris, a.a.digitationis palmaris propriae, n.n.digitationis palmaris propriae, m.palmarius brevis
Sinew of the surface flexor muscle of fingers, m.flexor pollicis longus, n.medianus, a.comitans n.mediani
M.flexor carpi ulnaris, a. et v.ulnaris, ramus palmarius n.ulnaris

Name the point of puncture by needle for blockade of ulnar nerve for operations on hands:

In the crossing point of proximal fold of wrist with radial margo of sinew of ulnar flexor muscle of hand
#In the crossing point of proximal fold of wrist with ulnar margo of sinew of ulnar flexor muscle of hand
In intercarpal gap along a horizontal drawn on dorsal side of hand from I metacarpophalangeal articulation to ulnar margo of metacarpal

At the base of “anatomical snuffbox”

Name the point of puncture by needle for blockade of radial nerve for operations on hands:

At the base of “anatomical snuffbox”
#In intercarpal gap along a horizontal drawn on dorsal side of hand from I metacarpophalangeal articulation to ulnar margo of metacarpal
In the crossing point of proximal fold of wrist with radial margo of sinew of ulnar flexor muscle of hand
In the crossing point of proximal fold of wrist with ulnar margo of sinew of ulnar flexor muscle of hand
#In the crossing point of proximal fold of wrist with radial margo of sinew of ulnar flexor muscle of hand
In the crossing point of proximal fold of wrist with ulnar margo of sinew of ulnar flexor muscle of hand

In the area of interdigital folds

At the base of “anatomical snuffbox”
#Name joint surfaces of art. humero-ulnaris:
Trochlea humeri, incisura trochlearis ulnae
#Capitulum humeri, fovea capitis radii
Circumferentia articularis radii, incisura radialis ulnae
Zona orbicularis, retinaculum flexorum
#Name joint surfaces of art. humero-ulnaris:
Capitulum humeri, fovea capitis radii
#Trochlea humeri, incisura trochlearis ulnae
Circumferentia articularis radii, incisura radialis ulnae
Zona orbicularis, retinaculum flexorum
#Name joint surfaces of art. radioulnaris proximalis:
Circumferentia articularis radii, incisura radialis ulnae
# Palmar interosseous fascia

Palmar aponeurosis

!What is middle fascial sheath of palm limited by in front?
- Sinew of m.flexor carpi radialis

# R.palmaris n.ulnaris, a.ulnaris, v.ulnaris

!What is situated in canalis carpi radialis?
- Sinew of m.flexor carpi ulnaris

# R.dorsalis n.ulnaris, a.radialis, v.radiales

R.palmaris n.ulnaris, a.ulnaris, v.ulnaris

!What is situated in Guyon's canal?
- R.palmaris n.medianus, r.cutaneus palmaris n.ulnaris, a.a.digitales palmaris propriae, n.n.digitales palmaris propriae, m.palmaris brevis

R.palmaris n.medianus, r.cutaneus palmaris n.ulnaris, a.comitans n.mediani

!What is situated in carpal canal?
- Sinew of m.flexor carpi ulnaris, m.flexor digitorum superficialis, m.palmaris brevis

R.palmaris n.medianus, r.cutaneus palmaris n.ulnaris, a.comitans n.mediani

!What is situated in subcutaneous tissue of the palm surface of fingers and hand?
- M.flexor pollicis longus, m.flexor digitorum profundus, m.pronator quadratus

M.flexor digitorum superficialis, m.flexor carpi radialis

M.flexor digitorum superficialis, m.flexor digitorum profundus, m.palmaris longus

!What incision is done to...?
- M.flexor digitorum superficialis, m.flexor carpi radialis

M.flexor pollicis longus, m.flexor digitorum profundus, m.pronator quadratus

M.flexor digitorum superficialis, m.flexor digitorum profundus, m.palmaris longus

!What incision is done to...?
- M.flexor digitorum superficialis, m.flexor carpi radialis

M.flexor pollicis longus, m.flexor digitorum profundus, m.pronator quadratus

M.flexor digitorum superficialis, m.flexor digitorum profundus, m.palmaris longus

!What incision is done to...?
- M.flexor digitorum superficialis, m.flexor carpi radialis

M.flexor pollicis longus, m.flexor digitorum profundus, m.pronator quadratus

M.flexor digitorum superficialis, m.flexor digitorum profundus, m.palmaris longus

!What incision is done to...?
- M.flexor digitorum superficialis, m.flexor carpi radialis

M.flexor pollicis longus, m.flexor digitorum profundus, m.pronator quadratus

M.flexor digitorum superficialis, m.flexor digitorum profundus, m.palmaris longus

!What incision is done to...?
- M.flexor digitorum superficialis, m.flexor carpi radialis

M.flexor pollicis longus, m.flexor digitorum profundus, m.pronator quadratus

M.flexor digitorum superficialis, m.flexor digitorum profundus, m.palmaris longus

!What incision is done to...?
- M.flexor digitorum superficialis, m.flexor carpi radialis

M.flexor pollicis longus, m.flexor digitorum profundus, m.pronator quadratus

M.flexor digitorum superficialis, m.flexor digitorum profundus, m.palmaris longus

!What incision is done to...?
- M.flexor digitorum superficialis, m.flexor carpi radialis

M.flexor pollicis longus, m.flexor digitorum profundus, m.pronator quadratus

M.flexor digitorum superficialis, m.flexor digitorum profundus, m.palmaris longus

!What incision is done to...?
Medial myoseptum
Lateral myoseptum

What is middle fascial sheath of palm limited by at the back?

Interosseous fascia
# Palmar aponeurosis
Medial myoseptum
Lateral myoseptum

What divides middle fascial sheath of the palm into surface and deep parts?

Sinews of flexor muscles of fingers
# Sinews of m. flexor pollicis longus
Palmar aponeurosis
Lateral myoseptum

What is situated in tissue of surface part of middle fascial sheath of the palm?

Arcus palmaris superficialis, n.n.digitales palmares communis
# Arcus palmaris profundus, n.n.digitales palmares proprii
Sinews of flexor muscles of fingers
Arcus palmaris profundus, r.profundus n.ulnaris

What is situated in tissue of deep part of middle fascial sheath of the palm?

Arcus palmaris profundus, r.profundus n.ulnaris
# Arcus palmaris superficialis, n.n.digitales palmares communis
Sinews of flexor muscles of fingers
Arcus palmaris profundus, a.a.digitales palmares proprii

Name the projecting line of surface palm arch:
1 cm higher than proximal fold of palm
1 cm lower than proximal fold of palm
1 cm higher than distal fold of palm
1 cm lower than distal fold of palm

What muscles thenar are innervated by the median nerve?
M.abductor pollicis brevis, m.flexor pollicis brevis (superficial head of muscle), m.opponens pollicis
# M.abductor pollicis longus, m.flexor pollicis brevis (deep head of muscle), m.adductor pollicis
Sinews of flexor muscles of fingers
M.flexor pollicis longus, m.flexor digitorum profundus, m.pronator quadratus

What muscles thenar are innervated by the ulnar nerve?
M.adductor pollicis, m.flexor pollicis brevis (deep head of muscle)
# M.abductor pollicis brevis, m.flexor pollicis brevis (superficial head of muscle), m.opponens pollicis
M.adductor digitii minimi, m.flexor digitii minimi brevis, m.opponens digitii minimi
M.flexor pollicis longus, m.flexor digitorum profundus, m.pronator quadratus

Name the contents of ulnar fascial sheath of palm:
M.adductor digitii minimi, m.flexor digitii minimi brevis, m.opponens digitii minimi
# M.abductor pollicis brevis, m.flexor pollicis brevis, m.adductor pollicis, sinew of m.flexor pollicis longus
M.abductor pollicis brevis, m.flexor pollicis brevis (superficial head of muscle), m.opponens pollicis
M.adductor digitii minimi, m.flexor digitii minimi brevis, m.opponens digitii minimi
M.flexor pollicis longus, m.flexor digitorum profundus, m.pronator quadratus

Name the contents of external fascial sheath of palm:
M.abductor pollicis brevis, m.flexor pollicis brevis, m.adductor pollicis, sinew of m.flexor pollicis longus
# M.abductor digitii minimi, m.flexor digitii minimi brevis, m.opponens digitii minimi
M.flexor pollicis brevis, m.flexor pollicis brevis (superficial head of muscle), m.opponens pollicis
M.adductor pollicis brevis, m.flexor pollicis brevis (deep head of muscle), m.adductor pollicis

What incision is done to drain phlegmons of medial tissue space of palm?
Kanavel’s
# Pirogov’s
Langenbeck’s
Toprover’s

Where do they do incisions to patients with phlegmons of medial tissue space of palm?
In the middle of palm between heads of III and IV metacarpal bones, from proximal fold of palm to proximal phalanx
Along external margo of hypothenar between heads of II and III metacarpal bones, along proximal fold of palm to distal proximal phalanx
Along distal fold of palm, along inner margo of thenar, 1 cm higher than proximal fold of palm
1 cm higher than distal fold of palm

What creates superficial palm arch?
A.ulnaris i r.palmaris superficialis a.radialis
# A.radialis i r.palmaris profundus a.ulnaris
A.collateralis ulnaris inferior and ramus anterior a.recurrens ulnaris
A.collateralis ulnaris superior and ramus posterior a.recurrens ulnaris

What creates deep palm arch?
A.radialis i r.palmaris profundus a.ulnaris
# A.ulnaris i r.palmaris superficialis a.radialis
A.collateralis ulnaris inferior and ramus anterior a.recurrens ulnaris
A.collateralis ulnaris superior and ramus posterior a.recurrens ulnaris

Name the authors of nerve block anesthesia for operations on fingers and hands?
Lukashevich, Oberst, Brown, Ussoltseva
# Pirogov, Kanavel, Sokolov
Farabev, Luppy, Malgen
Shede, Kocher, Klapp, Sokolov.

What is situated in canal of supinator?
Deep branch of radial nerve
# Surface branch of radial nerve
Median nerve
Dorsal branch of ulnar nerve

What is the point of puncture by needle for blockade of ulnar nerve for operations on hands:
In the crossing point of proximal fold of wrist with radial margo of sinew of ulnar flexor muscle of hand
# In the crossing point of proximal fold of wrist with ulnar margo of sinew of ulnar flexor muscle of hand
In intercarpal gap along a horizontal drawn on dorsal side of hand from I metacarpophalangeal articulation to ulnar margo of metacarpal
At the base of “anatomical snuffbox”

Name the point of puncture by needle for blockade of radial nerve for operations on hands:

At the base of “anatomical snuffbox”

In intercarpal gap along a horizontal drawn on dorsal side of hand from I metacarpophalangeal articulation to ulnar margo of metacarpal

In the crossing point of proximal fold of wrist with radial margo of sinew of ulnar flexor muscle of hand

In the crossing point of proximal fold of wrist with ulnar margo of sinew of ulnar flexor muscle of hand;

In the crossing point of proximal fold of wrist with radial margo of sinew of ulnar flexor muscle of hand

In the area of interdigital folds

At the base of “anatomical snuffbox”

What layers differentiate synovial membrane of sinews of finger flexors?

Epitendon, peritendineum

Visceral, parietal

Internal and external

Mesotendinum

What is being created in the area of duplication synovial membrane?

Mesotendinum

#Epitendon

Peritendineum

Perichondrium

Name the point of puncture by needle for blockade of median nerve for operations on hands:

In the crossing point of the middle of distal fold of wrist with ulnar margo of sinew of ulnar flexor muscle of hand

In the crossing point of proximal fold of wrist with ulnar margo of sinew of ulnar flexor muscle of hand

In the area of nail phalanx, along lateral surface

Along the external margo of hypothenar

At the area of medial phalanx, at the area of proximal phalanx, along anterolateral surface, above the head of metacarpal bone

At the area of nail phalanx, along lateral surface

Where can pus spread to during tendobursitis of V finger?

To the space of Pirogov-Parona, to radial bursa, to radial wrist joint, to tissue area of palm

To lateral osteal-fibrous sheath of the front part of forearm, to dorsal of forearm

To the area of medial phalanx, to the area of proximal phalanx

To the space of Pirogov-Parona, to forearm, to area of hypothenar

Where are incisions done during tendovaginitis of II, III and IV fingers?

At the level of metacarpophalangeal articulations to the base of distal phalanxes

From the level of base of proximal phalanxes to the top of distal phalanxes

From radial wrist joint to the top of distal phalanxes

From wrist canal to the base of distal phalanxes.

Where can pus spread to during tendovaginitis of I and V fingers?

At the area of medial phalanx, at the area of proximal phalanx, along anterolateral surface, at the forearm where the space of Pirogov-Parona is being drained.

Where are incisions done during tendovaginitis of I and V fingers?

At the area of medial phalanx, at the area of proximal phalanx, along anterolateral surface, at the forearm where the space of Pirogov-Parona is being drained

Along the external margo of hypothenar

Along the internal margo of thenar.

Which muscles limit “anatomical snuffbox” from the front and exterior?

m.abductor pollicis longus, m.extensor pollicis brevis

m.extensor pollicis longus, m.extensor digitorum brevis

m.extensor indicis

m.extensor pollicis longus

Sinews of which muscle limit “anatomical snuffbox” from the back?

m.extensor pollicis longus

m. abductor pollicis longus

m.extensor pollicis longus, m.extensor pollicis brevis

m.extensor pollicis longus, m.extensor digitorum

Which muscles limit “anatomical snuffbox” from the back?

m.extensor pollicis longus, m.extensor digitorum

Which arteria enters “anatomical snuffbox”?

a.radialis

#a.ulnaris

a.brachialis

a.axillaris

What lies at the first fibrous canal of the back area of wrist?

Vaginae tendinum mm.abductoris pollicis longi et extensoris pollicis brevis

#Sinew of mm.extensor carpi radialis longus et brevis

Vagina tendinum mm.extensoris digitorum et extensoris indicis

Vagina tendinis mm.extensoris pollicis longi

What lies at the second fibrous canal of the back area of wrist?

Sinews of mm.extensor carpi radialis longus et brevis, surrounded by synovial sheaths

#Vagina tendinis mm.extensoris pollicis longi

Vaginae tendinum mm.abductoris pollicis longi et extensoris pollicis brevis

Vaginae tendinum mm.extensoris digitorum

What lies at the third fibrous canal of the back area of wrist?

vagina tendinis mm.extensoris pollicis longi

# Synovial sheath of mm.extensor carpi radialis longus et brevis

vagina tendinum mm.extensoris digitorum et extensoris indicis

Vaginae tendinum mm.abductoris pollicis longi et extensoris pollicis brevis

What lies at the fourth fibrous canal of the back area of wrist?

vagina tendinum mm.extensoris digitorum et extensoris indicis

#vagina tendinis mm.extensoris digitii minimi

vagina tendinis mm.extensor carpi ulnaris
vagina tendinis m.extensoris pollicis longi

!What lies at the fifth fibrous canal of the back area of wrist?

vagina tendinis m.extensoris digitii minimi

#vagina tendinum mm.extensoris digitorum et extensoris indicis

vagina tendinis mm.extensor carpi ulnaris

!What lies at the sixth fibrous canal of the back area of wrist?

vagina tendinis m.extensor carpi ulnaris

#vagina tendinis m.extensoris digitii minimi

vagina tendinum mm.extensoris digitorum et extensoris indicis

vagina tendinis m.extensoris pollicis longi

!What lies at subcutaneous tissue of the front area of wrist?

V.mediana antebrachii, n.cutaneus antebrachii medialis et lateralis, r.palmaris n.medianus, r.cutaneus palmaris n. ulnaris

#R.superficialis n.radialis, a. et vv.ulnares, a. et vv.radiales, n.interosseus anterior

V.cephalica, n.cutaneus antebrachii lateralis, r.superficialis n.radialis, r.profundus n.radialis, r.dorsalis n.ulnaris, a.radialis

N.ulnaris, n.medianus, n.radialis

!What is carpal canal formed by?

Distal raw of wrist bones

#Distal ends of radial and ulnar bones and interosseous membrane

Raw of wrist bones

Retinaculum flexorum, os trapezium

!What is canalis carpi radialis formed by?

Retinaculum flexorum, os trapezium

#Retinaculum extensorum, os hamatum

Membrana interossea, os trapezium

Retinaculum flexorum, distal raw of wrist bones

!What lies in subcutaneous tissue of the back area of wrist?

V.cephalica, v.basilica, r.superficialis n.radialis, r.dorsalis n.ulnaris, n.cutaneus antebrachii posterior

#R.profundus n.radialis, r.palmaris n.medianus, r.palmaris n.ulnaris, v.mediana antebrachii

R.superficialis n.radialis, a. et vv.ulnares, a. et vv.radiales, n.interosseus anterior

V.cephalica, n.cutaneus antebrachii lateralis, r.superficialis n.radialis, r.profundus n.radialis, r.dorsalis n.ulnaris, a.radialis