PURULENT DISEASES OF FINGERS

Training program

general surgery department
Felon is

- Furuncle version
- Purulent inflammation of hand fingers
- Purulent inflammation of any finger
Certainly not
Historically the term of “felon" is applied only to purulent diseases of hand fingers
Felon is an acute suppurative disease of fingers
Main cause of Felon development

- immunity deficiency
- Microinjury of a finger
- Gematogenes infection spreading
Theoretically probably, but it is almost improbable
wrong
Correctly!
Felon

- cutaneous
- paronychial
- hyponychial
- subcutaneous
- furuncle of the finger

The superficial

- osteal
- tendinous
- articular
- pandactilitis

The deep
The disease has begun after one has rubbed finger skin with a glove at a physical activity. There was a blister with muddy contents. Skin around a blister is hyperemic. Diagnosis?

- Bedsore of finger skin
- The infected callosity of a finger
- Cutaneous felon
Bedsore appears at a long pressure of a motionless site of a body – a sacrum, a nape, interscapular area
The term «the infected callosity» sometimes is applied, but mainly in relation to diseases of feet
Correctly!

- cutaneous felon - a local pus accumulation within skin (a site under epidermis). Often felon is accompanied with expressed lymphangitis and lymphadenitis.

- Treatment surgical - is made removal of epidermis, as a rule thus it is not required anaesthesia. Purulent exudate is evacuated, then it is necessary to examine carefully an surface not to pass felon in the form of "cuff link" (when purulent process by a narrow fistula extends in subcutaneous tissue). The inflammatory is stopped within 5-10 days depending on spreading of process.
Soon after performance of manicure there was a pain at the basis of a nail plate. Skin is red. Diagnosis?

- **Abscess of the nail**
- **erysipelas**
- **Paronichial**
Erysipelas of a finger happens. Its feature is distinct margins and a bright redness of skin. Sometimes (after pork cutting) on a finger there is «a pork Erysipelas» - Erysipeloid. But on this photo is not an Erysipelas.
Correctly!

- paronychial - an inflammation of the nail fold.
- wrong treatment the paronychial can get a chronic current, delivering a great deal of trouble to the patient.
- reason, as a rule, a nail, or wound of skin at manicure. There is an edema, redness of the nail fold, intensive pains. Pus can spread to beneath the nail plate dividing it from the sides.
At a paronychial it is necessary cut epidermis and pathological granulations; to raise the nail fold and to wash the inflammation place. Usually the regional resection of a nail plate is required.
After casual blow a hammer on a finger pain disturbed under a nail plate. Under a nail plate there was dark, almost black spot. Then pain has become stronger, the nail plate exfoliated – brown pus with a blood clot was disharged. Diagnosis?

- Hemorrhagic gangrene of a nail phalanx
- Hyponychial
- Pururelent hematoma
Such does not happen
Hyponychial - a purulent inflammation under a nail plate, thus the nail plate exfoliates from a nail bed on a bigger or smaller extent. The disease can be as a result of a paronychial; at direct introduction of an infection under a nail plate (a prick a needle, a nail); or is complication of a hematoma under nail (often after an injury of a finger by the door).

Disease prevention - competent treatment of a paronychial and early evacuation of hematoma after a trauma.

At the limited local exfoliation of a nail plate pus (less than 1/3 its total areas) is admissible to execute a nail resection only on the changed site. In case of more extensive lesion it is necessary to delete completely a nail plate, keeping a growth zone of a nail (if it is possible). Usually eroziv surface of a nail bed is epitelized on the average in 10-15 days after operation.
Choose a combination of a paronychial with Hyponychial
NO
Correctly!
In the anamnesis microtrauma. On a surface of a finger there is a blister filled with muddy liquid. Around – a soft redness. Define the diagnosis

- **Intracutaneous felon**
- **Paronychia**
- **erysipelas**
Subcutaneous felon– abscess of subcutaneous tissue of hand finger
Subcutaneous felon

- The disease develops at direct introduction of an infection in subcutaneous tissue of a finger with further development of a purulent inflammation. As a rule is a consequence of a microtrauma - a prick, a cut, a splinter etc. At first moderate edema and redness of skin of a finger, further the inflammatory process is noted progress, pains gain pulsing character, become very intensive. Treatment surgical.
Yesterday has pricked a finger when cutting fish. Constant moderate pain in a prick place disturbs. Round a prick place a morbidity zone with a soft redness without tension of soft tissues. Tactics:

- **Immediately to operate**
- **To prescribe antibiotics**
- **To paint skin around a wound iodine tincture, to apply a local hypothermia**
Term of development of a purulent disease – 2-3 days. Convincing signs of an abscess it is not described
Antibiotics at anything. To create effective concentration of antibiotics in the inflammation place all the same it will not be possible.
In a phase of a serous exudation anti-inflammatory therapy is applied. If there is a trace of a stab wound, it is necessary to cut off hanging epidermis and to apply cold and rest. Cooling of a finger repeats 5-6 times. Then the sterile bandage and an immobilisation is applied. Krioterapiya not unique method, but available and effective method of treatment.
Surgical treatment is shown at development of a purulent inflammation. Thus pains are get pulsing character, there is a area of a redness and tension of tissues.

- On a nail phalanx of a finger the "hockey stick" cut is made, on middle and main phalanxes the cut on a lateral surface is made. Skin and hypodermic rags are parted and necrotic tissue is removed.
- The formed cavity is carried out by a gauze strip with levomekol. Further, daily change of bandages is made.
Choose a type of anaesthesia for opening Subcutaneous felon of an middle phalanx III finger of the right hand

- Intravenous anaesthesia
- Terminal anaesthesia with chloretyl
- Conductive anaesthesia according to Lukashevich-Oberst
- Conductive anaesthesia according to Kullenkampf
It is absolutely impractical ...
It is painful!
Conductive anaesthesia according to Kullenkampf is an anaesthesia of a humeral plexus
Operation is carried out under Conductive anaesthesia according to Lukashevich-Oberst
Cuts in Subcutaneous felon

- Cuts on lateral surfaces of fingers
- "hockey stick" cuts on a distal phalanx
Choose an optimum surgical cut at treatment of felon
Opening Subcutaneous felon
Optimum surgical treatment of a paronychial

- Removal of a nail plate
- Cut along edge of the nail fold
- Excision of edge of the nail fold and regional resection of a nail plate
How to drain a wound after opening a felon?

- Gauze napkin with ointment Vishnevsky
- Rubber strip
- It is not necessary to drain. It is necessary to place suture
It is impossible so to act
Opening felon
Choose felon on the cuff link type
Correctly!
After a microinjury of a nail phalanx of a finger there was not healing wound with the purulent secretion. For medical care has addressed in two months from the disease beginning. In a hospital long treatment was carried out. Define character of a disease

- **Purulent fistula of a finger**
- **It is long not healing felon**
- **Osteal panaritium (Bone felon)**
Bone felon is osteomyelitis of a bone phalanx of a finger.

Develops upon transition of pathological process from soft tissues of a finger to bone, i.e. process has secondary character.

Generally bone panaritium is the result of not appropriate treatment of.
Microinjury of a finger a week ago – has pricked a finger with a wire.

In a x-ray picture rough pathology is not present.

Define treatment tactics

- **Plaster immobilisation, cold, antibiotics**
- **Operation – an excision edges of a wound, opening a panaritium**
- **Thermal procedures, control of a x-ray picture**
The result of your treatment will be such
Operation should be carried out without waiting the obvious destructive changes defined radiological.
It is necessary to be guided by a clinical picture of a course of process. Diagnostic bone panaritium in 3-4 weeks in a phase of a sequestrum comes easy, but treatment will consist in finger amputation.
Has ached 2 weeks ago. The disease connects with a microtrauma. There was a redness in a joint. Disturbs pain at the straightened finger. Finger is bended. Diagnosis?

- Bursitis of interphalanx joint
- Erizepeloid
- Articular panaritisum
serous -purulent inflammation of interphalanx and metacarpal-phalanx joints of fingers is called articular panaritium

Primary articular panaritium—wounds getting into a joint, pricks

The secondary – progressing bone, tendon, subcutaneous panaritium
Articular panaritium

- fusiform distension of a finger in projections of an interphalanx joint,
- sharp restriction of movements in a joint,
- tendiness at a palpation and at movements,
- appearance of pathological mobility and a krepitation in a joint.
Trauma 5 days ago. There is a purulent wound of the back of a finger. In policlinic local treatment by bandagings with oil was carried out. Your tactics:

- **Hospitalisation in purulent department of a hospital**
- **Treatment in policlinic to add with prescription of antibiotics**
- **Immediately to operate**
What to operate?
Here result of such treatment
The patient will be dissatisfied. The insurance company can be dissatisfied. Operations can be demanded. But the patient will be under control of surgeons
Whether it is possible to keep a finger at this articular panaritium?

The finger should be amputated.

It is necessary to apply a plaster immobilisation, to order antibiotics, a joint puncture with washing its by antiseptics.

It is necessary to perform an arthrotomy with excision of articulate cartilages.
While early
Yes. It is necessary to try to keep a finger

Treatment only surgical - is made an arthrotomy, careful sanitation of a cavity of a joint by antiseptics then the cavity of a joint is drained by the punched polymeric tube. It is necessary to close a wound over a joint cavity.
In what case finger amputation is shown?
In two last cases amputation is shown
Tendinous panaritium

one of the heaviest types panaritium. There is signs of purulent tendovaginitis. The disease develops due to primary entering of an infection into a tendon sheath of flexor (at a cut, a prick etc.), or as progressing of hypodermic process at inadequate treatment of the last. Development of a purulent infection in tendon sheath has bright clinical picture - the patient is disturbed by the expressed pains along the whole length of tendon, any movements are extremely painful. The surgical help should be performed as soon as possible as tendons quickly die in the conditions of surrounding purulent process.
Tendinous panaritium

- Uniform swelling of all finger with edema on a back surface of a hand;
- Tenderness at pressure by a probe along the whole length of tendon sheath, precisely limited by a zone of its location;
- Sharp pain at movements, especially at a straightening;
- Finger fixing in the position of easy bending.
Tendinous panaritium

At development of a purulent infection in a tendon sheath the expressed pain along the whole length of tendon sheath disturbs, any movements are extremely painful.
Tendinous panaritium

The surgical help should be performed as soon as possible as tendons quickly die in the conditions of surrounding purulent process.
Tendinous panaritium

Operation is made under conductive anaesthesia or under narcosis. The main task of operation – to open a tendon sheath and to estimate viability of a tendon. If it is viable, the sheath is carefully washed out by antiseptics from two parties and is drains by the punched polymeric tubu.
At identification of a necrosis of tendon the last is cut within healthy tissues. Operation is ended with wound filling by a gauze strip with levomekol. Further, secondary sutures are placed.
Opening of a sheath releases a finger tendon from pressure and prevent necrosis.
Opening Tendinous Panaritium

It is important to open the end of the sheath at the level of a head of a metacarpal bone. For this purpose, use a "hockey stick" cut below the finger basis.
Whether it is correctly opened Tendinous panaritium?

Yes. Some cuts are executed. The abscess is adequately drained.

No. Viability of a finger in doubt
Part of surgeons open Tendinous panaritium exactly so. But …
On a photo it is visible that soft tissues of a finger are inflamed on all its extent. It means that the necrosis of a tendon has taken place. It is impossible to remove a tendon from a set of small cuts. It will continue to support pyoinflammatory process before development pandactilitis.
- Tendon sheaths II-IV fingers end at level of heads of metacarpal bones.
- Sheaths I and V fingers proceed on a forearm via the karpal channel.
- Therefore progressing of purulent tendovaginitis I and V fingers leads to development of phlegmon of Pirogovsky space of a forearm.
inTendinous panaritium I and V fingers opening deep space of a forearm is necessary
pandactilitis is

- Inflammation of all fingers
- It is purulent - necrotic lesions of all structures of a finger
- Finger gangrene
Pandactilitis is nonspecific purulent - necrotic lesions of a finger extending not less than on two phalanxses and affecting skin, subcutaneous tissue, tendon, a bone or at least one of joints. Pandactilitis is not gangrene.
In what photo it is represented Pandactilitis?
No. It is a necrosis of fingers after their unsuccessful transplantation
Correctly. Itself Pandactilitis yet is not the indication to finger amputation, but its probability is high.