MSS WEEK 2

EVERYTHING IN ONE FILE

SUMMARY & TESTBANK

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PATHOLOGY

METABOLIC DISORDERS :

Osteopenia = bone mass 1-2,5 SD Below mean

Osteoporosis: severe osteopenia > than 2.5 SD below the mean , with increase risk for fractures

PRIMARY OSTEOPOROSIS = generalized , more common , postmenopausal , aging (senile)

secondary OSTEOPOROSIS= localized , less common , Hyperthyroidism, malnutrition, steroids

OSTEOPOROSIS

more common in women

prevention is more efficient than treatment

factors : genetic (can not control , same family),physical activity + nutrition (can be controlled)

aging = decrease in activity of osteoprogenitor cells and osteoblast + decreased biological activity of matrix bound growth factors

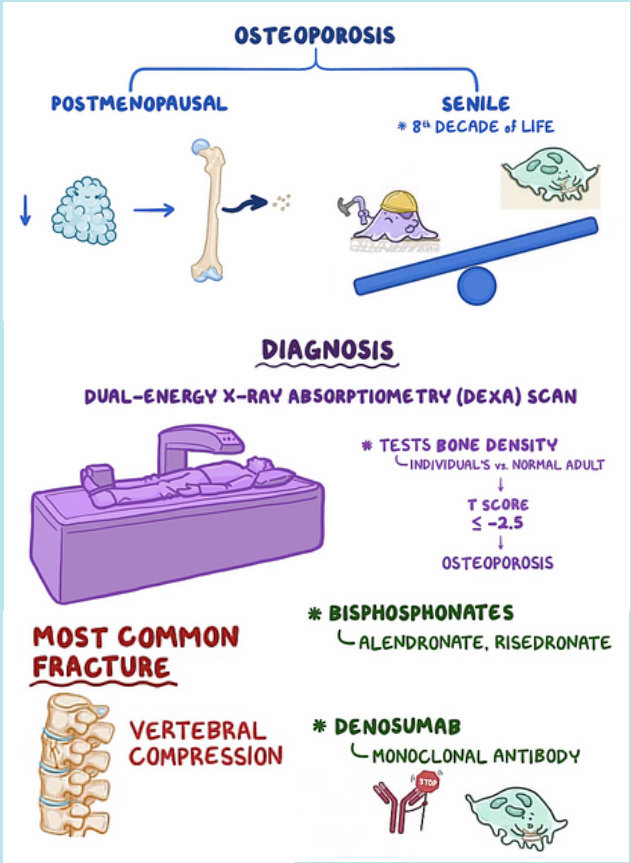
menopausal : less estrogen , high IL-1, IL-6 , TNF + High RANK , RANKL interactions + high osteoclast activity

clinically : Vertebral fractures are the most common (which make me think that they are the reason of becoming shorter , you can ignore me)

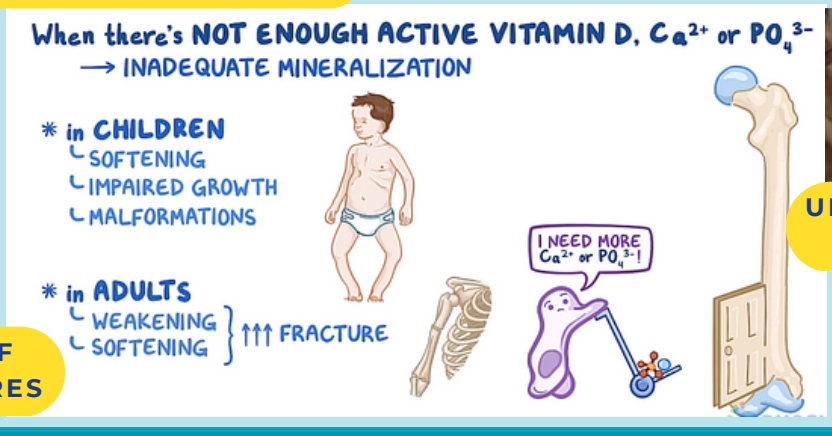
Femur and pelvic fractures: immobility, PEs (pulmonary embolism (جلطة على الرئة)), pneumonia (40-50K death/yr in USA)

prevention : (Exercise • Calcium & vitamin D)

treatment : (Bisphosphonates: reduce osteoclast • Denosumab: (more efficient) anti-RANKL; blocking osteoclast • Hormones (estrogen): risking DVT and stroke)



RICKETS & OSTEOMALACIA



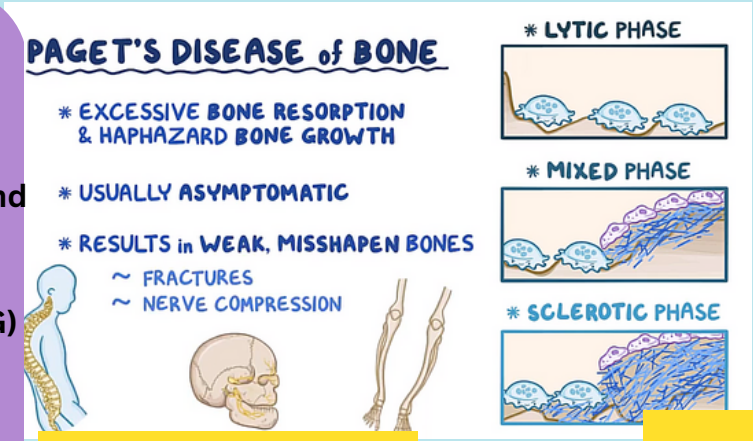
RISK OF FRACTURES

UNMINERALIZED MATRIX

HYPERPARATHYROIDISM (HPT)

hyperparathyroidism is a condition where the body releases too much parathyroid hormone.
Primary hyperparathyroidism is usually caused by a parathyroid adenoma, resulting in high calcium and low phosphate levels .
Secondary hyperparathyroidism is usually caused by chronic kidney disease, resulting in low calcium, high phosphate, and low vitamin D levels.
Tertiary hyperparathyroidism is caused by chronic secondary hyperparathyroidism from kidney disease, resulting in hypercalcemia and high phosphate .
Hyperparathyroidism arises from either autonomous or compensatory hypersecretion of PTH and can lead to osteoporosis, brown tumors, and osteitis fibrosa cystica (von Recklinghausen's disease of bone). However, in developed countries, where early diagnosis is the norm, these manifestations are rarely seen .

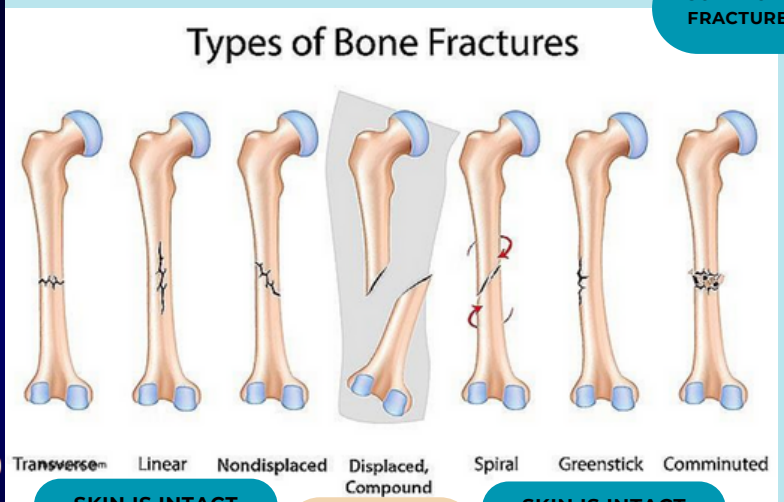
PAGET DISEASE OF BONE (OSTEITIS DEFORMANS)
• Increased badly formed bone structure.
• 3 phases (lytic, mixed, sclerotic)
• 1% in USA; geographic variation • Genetic and environmental factors
• 50% of familial Paget and 10% of sporadic have SQSTM1 gene mutations (+RANK & -OPG)
• Viruses (measles and RNA viruses)
mosaic pattern of lamellar bone
DX: x-ray; serum Alk P, Normal Ca and PO4
secondary osteoarthritis; fractures; osteosarcoma (1%)



LEONTIASIS OSSEA (LION FACE)
AXIAL SKELETON MORE AFFECTED

MOSAIC

FACTORS IMPACTING PROPER HEALING:
- Displaced and comminuted #s
- Inadequate immobilization (delayed union or nonunion)
- Pseudoarthrosis
- Infection (open #s)
- Malnutrition
- Steroids/AIDrugs



SOFT BONE FRACTURE

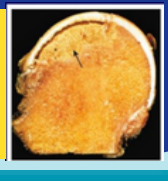
SKIN IS INTACT

SKIN IS PENTRATED

SKIN IS INTACT

Infarction (ischemic necrosis) of bone and marrow
ASSOCIATED CONDITIONS: - Vascular injury: trauma, vasculitis - Drugs: steroids - Systemic disease: Sickle - Radiation MECHANISM: - Mechanical disruption - Thrombotic occlusion - Extravascular compression

MORE YELLOW , LESS RED , LESS VASCULAR



PATHOLOGY TESTBANK

In the Paget disease of bone, lesions have a mixture of lamellar and woven bone, which gives it a classic _____ pattern.

An isolated increase in serum alkaline phosphatase is commonly indicative of _____.

Serum calcium levels (increase/decrease/do not change) _____ in Paget disease of bone.

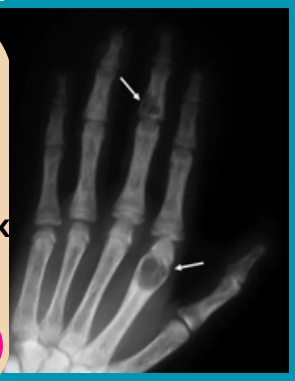
_____ hyperparathyroidism will have high calcium and low phosphate.

_____ hyperparathyroidism in chronic renal disease will have low calcium, elevated phosphate, and low vitamin D.

The _____ stage of Paget disease of bone involves increased osteoblast activity.

Paget disease of bone, also known as _____, is a common, localized bone disorder that involves an increase in both osteoblastic and osteoclastic activity.

A 74-year-old woman is brought to the emergency department because of generalized muscle aching, weakness and pain in the left hand. The symptoms started gradually a few months ago and have been progressing over time Past medical history is notable for uncontrolled hypertension , type 2 diabetes mellitus and end-stage renal disease and she has been receiving dialysis three times per week for the past 2 years. A radiograph of the patient's hands is shown :



A- SECONDARY HPT **B- PRAIMARY HPT** **C- PAGET DISEASE**

A 71-year-old man comes to the office because of non-radiating lower back pain. The pain has been present for the past 5 months and has progressively worsened. He has tried ibuprofen, which was initially able to control the pain but is no longer able to do so. He has no history of back trauma and does not perform any heavy lifting. Physical examination is notable for a decrease in height of 3 inches when compared with measurements taken one year ago and tenderness over the lumbar spine. What is the most likely underlying pathology of this patient's condition?

- A. Decreased osteoblast activity, normal osteoclast activity
- B. Intervertebral disc space calcification
- C. Decreased osteoblast activity, increased osteoclast activity
- D. Increased osteoblast activity, decreased osteoclast activity

MOSAIC
PAGET
DO NOT CHANGE
PRIMARY
SECONDARY
SCLEROTIC
OSTEITIS DEFORMANS
A
A

MICROBIOLOGY

Impetigo :
is a contagious superficial bacterial infection observed most frequently in children ages two to five years

IMPETIGO

NONBULLOUS

LESIONS BEGIN AS PAPULES SURROUNDED BY ERYTHEMA. SUBSEQUENTLY THEY BECOME PUSTULES THATBREAK DOWN TO FORM THICK, ADHERENT CRUSTS WITH A CHARACTERISTIC GOLDEN APPEARANCE

BULLOUS

YOUNG CHILDREN IN WHICH THE VESICLES ENLARGE TO FORM FLACCID BULLAE WITH CLEAR YELLOW FLUID

IMPETIGO

PRIMARY

DIRECT BACTERIAL INVASION OF PREVIOUSLY NORMAL SKIN

SECONDARY

SKIN TRAUMA SUCH AS ABRASIONS, MINOR TRAUMA, AND INSECT BITES

ECTHYMA IS AN ULCERATIVE FORM OF IMPETIGO IN WHICH THE LESIONS EXTEND THROUGH THE EPIDERMIS AND DEEP INTO THE DERMIS

THE PRINCIPAL PATHOGEN IS S. AUREUS AND BETA-HEMOLYTIC STREPTOCOCCI (G , C)

TREATMENT OF IMPETIGO IS IMPORTANT FOR REDUCING SPREAD OF INFECTION, HASTENING THE RESOLUTION OF DISCOMFORT, AND IMPROVING COSMETIC APPEARANCE

PATHOLOGY & CAUSES

- Highly infectious skin infection; affects superficial epidermis
  - Commonly affects children
  - Skin-to-skin spread possible
- Contact with carrier → pathogen enters intact/non-intact skin → incubation → lesion formation, spread over body through scratching
- Commonly caused by S. aureus, S. pyogenes

TREATMENT

MEDICATIONS

- Topical antibiotic

(FEWER SIDE EFFECTS)(LOWER RISK OF MRSA). MUPIROCIN AND RETAPAMULIN ARE FIRST-LINE TREATMENTS , MUPIROCIN IS A MIXTURE OF SEVERAL PSEUDOMONIC ACIDS INHIBITS ISOLEUCINE TRNA SYNTHETASE IN BACTERIA

FOLLICULITIS

PATHOLOGY & CAUSES

- Hair follicle inflammation (pyoderma), usually infectious cause
- May also be due to persistent trauma (mechanical folliculitis)
- Pathogen enters hair follicle → inflammatory inflammatory response → infection causes a perifollicular infiltrate of lymphocytes, neutrophils, macrophages → pustule formation

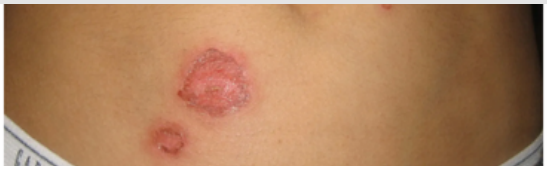
CAUSES

- Bacterial
  - S. aureus, Pseudomonas aeruginosa (hot-tub folliculitis)

RARELY, CANDIDA AND CERTAIN DERMATOPHYTES CAN CAUSE FOLLICULITIS

RISK FACTORS

- Swimming pools, hot tubs
- Shaving against hair growth, tight clothes causing friction, profuse sweating (hyperhidrosis)
- Use of antibiotics, acne medication, topical corticosteroids
- Upper respiratory presence of S. aureus



man presents to his primary care physician for evaluation of lesions on the abdomen. The lesions were fluid-filled sacs that eventually burst leaving behind yellow, crusted areas of inflammation.
Which of the following pathogenic factors is most likely responsible for this clinical presentation?

- A. Streptolysin O
- B. Toxin B
- C. Exfoliative toxin A

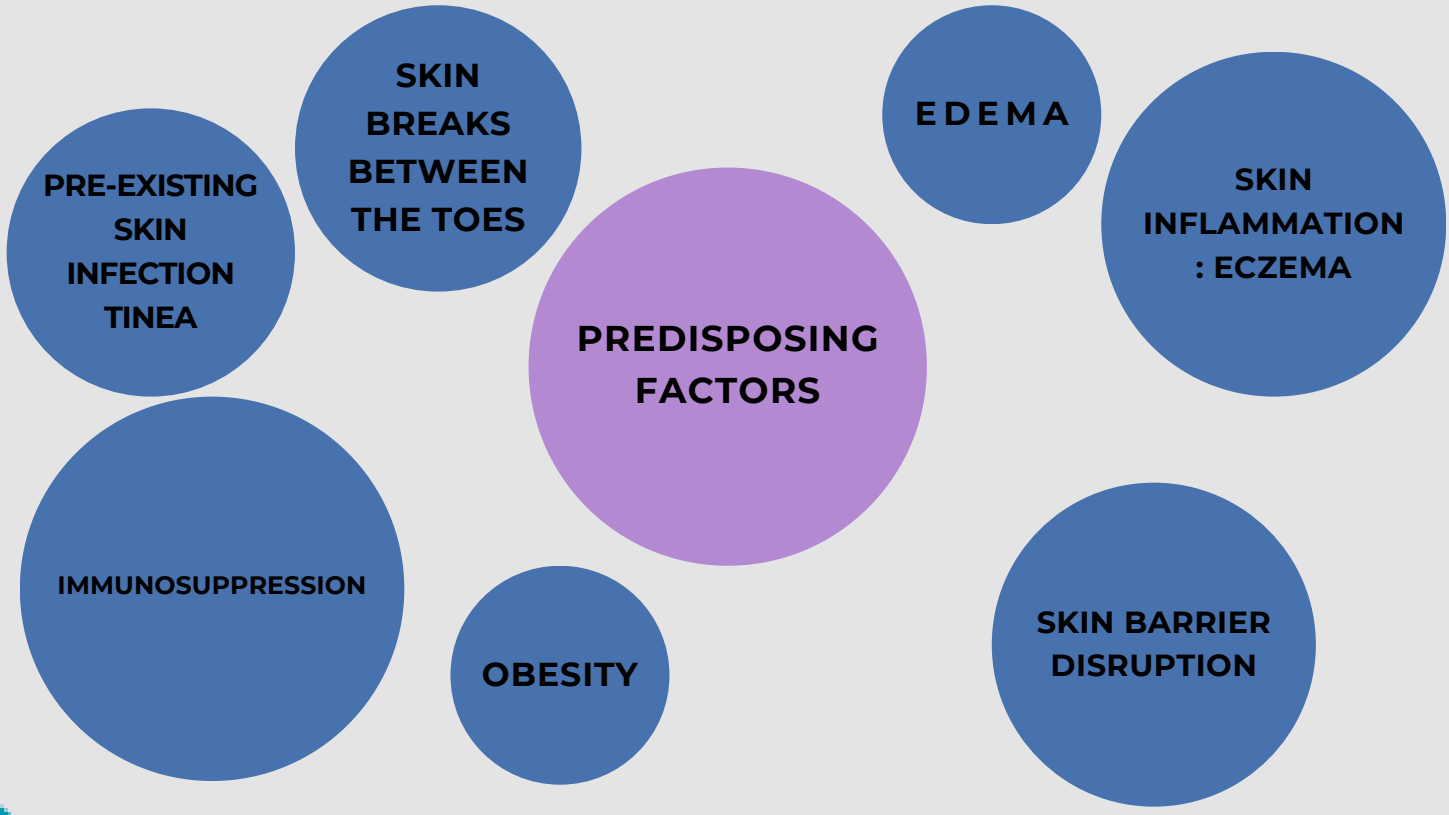
These findings are consistent with bullous impetigo, which is most commonly caused by strains of Staphylococcus aureus that secrete exfoliative toxin A.

A SKIN ABSCESS

is an infection of the dermis and deeper layers of skin that contains purulent material.
referred to as carbuncles and furuncles.
the most common organisms are Staphylococcus aureus ([MRSA]) and streptococci.
is round and feels firm and squishy
painful , red
Diagnosis: by clinical examination. Culture is recommended, primarily to identify MRSA
simple cutaneous abscesses include hidradenitis suppurativa (chronic inflammatory condition of the hair follicle) and ruptured epidermal cysts
"incision and drainage." with local anesthesia.
Antibiotics traditionally unnecessary unless the patient has signs of systemic infection, cellulitis, multiple abscesses, immunocompromise, or a facial abscess .

CELLULITIS

skin erythema, edema, and warmth ,it develops as a result of bacterial entry (beta-hemolytic streptococci most commonly group A Streptococcus or Streptococcus pyogenes; S. aureus MRSA .)
Petechiae and/or hemorrhage , and superficial bullae can occur
• Fever and other systemic manifestations of infection may also be present.
Cellulitis and erysipelas are nearly always unilateral, in the lower extremities
involves the deeper dermis and subcutaneous fat
more indolent course with development of localized symptoms over a few days ,Patients with cellulitis typically have symptomatic improvement within 24 to 48 hours of beginning antimicrobial therapy



ERYSIPELAS

occurs in young children and older adults
are caused by beta-hemolytic streptococci
involves the upper dermis and superficial lymphatics
erysipelas is nonpurulent , acute onset , clear demarcation , "butterfly" involvement of the face

PATIENTS WITH NONPURULENT CELLULITIS SHOULD BE MANAGED WITH EMPIRIC THERAPY LIKE CEFAZOLIN FOR INTRAVENOUS THERAPY AND CEPHALEXIN FOR ORAL THERAPY

NECROTIZING FASCIITIS

PATHOLOGY & CAUSES

- Potentially life-threatening infection
  - Progressive destruction of deep soft tissue (subcutaneous fat, muscle fascia)
- Bacteria spread via subcutaneous tissue → release exotoxins → tissue destruction spreads along fascial planes

TYPES

Type I: polymicrobial

- Causes: combination of aerobic, anaerobic bacteria
  - Most common anaerobes: *Bacteroides, Clostridium, Peptostreptococcus*
  - Enterobacteriaceae: *Escherichia coli, Klebsiella, Proteus, Enterobacter*
  - Facultative anaerobic streptococci
- Common sites
  - Perineum (Fournier's gangrene): impaired gastrointestinal/urethral mucosal integrity → spreads to anterior abdominal wall; gluteal muscles; scrotum, penis (in biological male); labia

Type II: monomicrobial

- Causes: Group A *Streptococcus*, other beta-hemolytic streptococci, *Staphylococcus aureus*

DIAGNOSIS

DIAGNOSTIC IMAGING

CT scan

- Subcutaneous gas visualized in fascial planes

LAB RESULTS

Blood

TREATMENT

MEDICATIONS

- Empiric IV antibiotics
  - Carbapenem/beta-lactam-beta-lactamase inhibitor + vancomycin/ linezolid + clindamycin

SURGERY

hemodynamic support

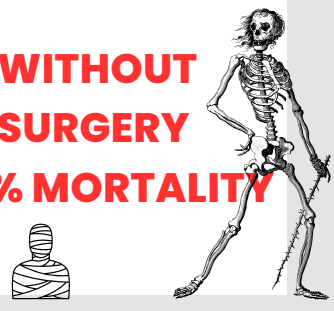
- Direct surgical examination of skin, subcutaneous tissue, fascial planes, muscle → debridement of all devitalized, necrotic tissue

LANDMARKS :
PRESENCE OF GAS
RAPID PROGRESSION
SEVERE PAIN
ACUTE
1&3 M PROTEIN

RISK :
PENETRATING TRAUMA
RECENT SURGERY
MUCOSAL BREACH
IMMUNOSUPPRESSION
DIABETES

- **Erythema** (without sharp margins; 72 percent)
- **Edema** that extends beyond the visible erythema (75 percent)
- Severe **pain** (out of proportion to exam findings in some cases; 72 percent)
- **Fever** (60 percent)
- Crepitus (50 percent) crackling sound , طقطقة فقاعات تحت الجلد
- Skin bullae, necrosis, or ecchymosis (38 percent) small bruis , كدمة

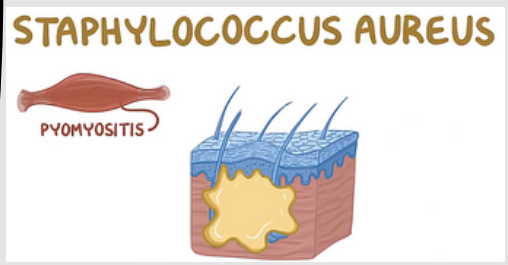
WITHOUT SURGERY
100% MORTALITY



PYOMYOSITIS :

purulent infection of skeletal muscle
usually with abscess formation
infection of the tropics
Staphylococcus aureus is the most common cause
fever and pain with cramping localized to a single muscle group
Stage 1 is crampy local muscle pain, swelling, and low-grade fever.
• Stage 2 occurs 10 to 21 days after the initial onset of symptoms : fever, exquisite muscle tenderness, and edema.
• Stage 3 is characterized by systemic toxicity.
Radiographic imaging for diagnosing
stage 1 pyomyositis =can antibiotics alone, stage 2 or 3 : both antibiotics and drainage

RISK FACTORS : IMMUNODEFICIENCY (PARTICULARLY HIV INFECTION), TRAUMA, INJECTION DRUG USE, CONCURRENT INFECTION, AND MALNUTRITION



CLOSTRIDIAL MYONECROSIS

Traumatic gas gangrene is most commonly caused by C. perfringens; spontaneous gangrene is most commonly caused by the more aerotolerant C. septicum

is a life-threatening muscle infection that develops either contiguously from an area of trauma or hematogenously
rapidly progressive invasion and destruction of healthy muscle
toxins are produced by C. perfringens; of these, alpha and theta toxins
hemolysis , break RBCs
plc , breaks membrane
C. perfringens is responsible for a range of soft-tissue infections including cellulitis, fasciitis or suppurative myositis, and myonecrosis with gas formation

Clostridial food poisoning, an **intoxication** characterized by (1) a short incubation period (8 to 12 hours), (2) a clinical presentation that includes abdominal cramps. (3) a clinical course lasting less than 24 hours.

THE TOXIN INVOLVED IN GAS GANGRENE IS KNOWN AS A-TOXIN,

enterotoxin = transition from vegetative cells to spores= is released in small intestine
diagnosis = pain , systemic toxicity and gas in the soft tissue , crepitus specifically
who have not received tetanus immunization for 5 years should receive a booster vaccine (HBO)

- penicillin
- clindamycin
- tetracycline
- chloramphenicol
- metronidazole

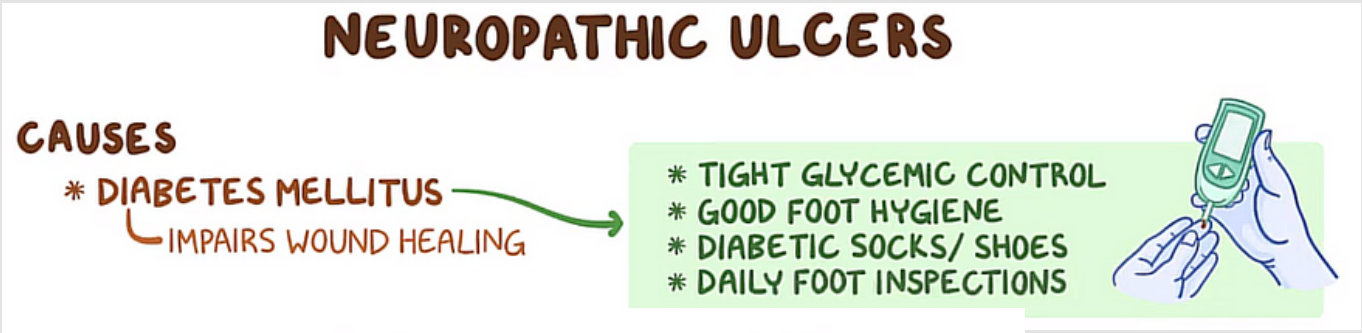
TREATMENT IS USUALLY DEBRIDEMENT AND EXCISION, WITH AMPUTATION . WATERSOLUBLE ANTIBIOTICS ALONE ARE NOT EFFECTIVE

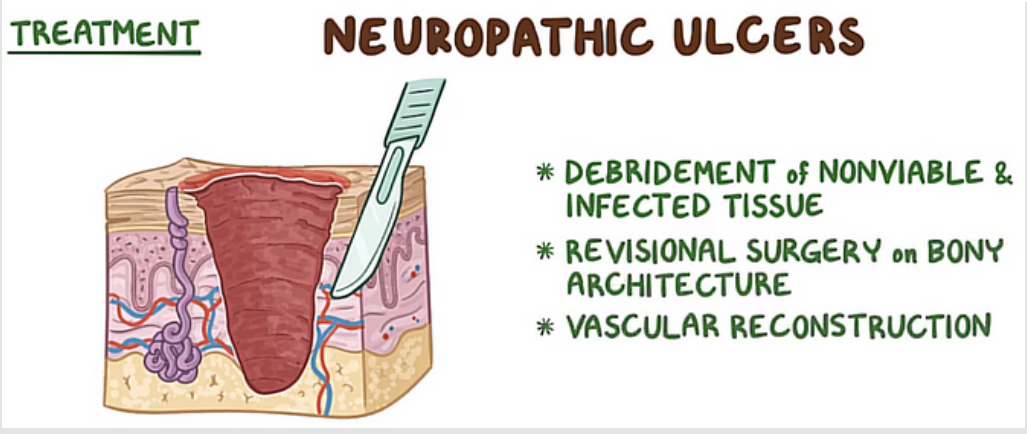
DIABETIC FOOT INFECTIONS :

WITH SUBSTANTIAL MORBIDITY AND MORTALITY
RISK FACTORS FOR DEVELOPMENT OF DIABETIC FOOT INFECTIONS INCLUDE NEUROPATHY, PERIPHERAL VASCULAR DISEASE, AND POOR GLYCEMIC CONTROL
NO SENSATION= LATE TO RECOGNIZE , NO SWEAT = DRY SKIN = INFECTION ,FOOT DEFORMITIES ,
PERIPHERAL ARTERY DISEASE CAN IMPAIR BLOOD FLOW NECESSARY FOR HEALING , HYPERGLYCEMIA IMPAIRS NEUTROPHIL FUNCTION AND REDUCES HOST DEFENSES
SUPERFICIAL DIABETIC FOOT INFECTIONS -- GRAM-POSITIVE COCCI
ULCERS THAT ARE DEEP-----POLYMICROBIAL = ENTEROCOCCI, ENTEROBACTERIACEAE, PSEUDOMONAS AERUGINOSA, AND ANAEROBES.
WOUNDS WITH EXTENSIVE LOCAL INFLAMMATION, NECROSIS, MALODOROUS DRAINAGE ---- ANAEROBIC ORGANISMS (BACTEROIDES , CLOSTRIDIUM) CAN SUBSEQUENTLY EXTEND TO JOINTS, BONES, AND THE SYSTEMIC CIRCULATION
MAY REACH BONE

THREE KEY STEPS:
1) DETERMINING THE EXTENT AND SEVERITY
2) IDENTIFYING UNDERLYING FACTORS
3) ASSESSING THE MICROBIAL ETIOLOGY

- ! UNINFICTED ∘ NO PUS
- ! MILD ∘ EREYTHEMA LESS THAN 2 Cm + PAIN , PUS
- !moderate ∘ deep tissue abscess
- ! SEVERE ∘ SYSTEMIC TOXICITY = TACHYCARDIA ACIDOSIS , etc





mini testbank

A 24-year-old man presents with small, yellow pustules confined to the hair follicles along the beard neckline. He reports pain and redness gradually increasing for the last couple of days. On examination, there are inflamed follicles. Gram stain shows cocci in grape-like clusters. What is the best next step?

- ◯ Oral antibiotics
- ◯ Biopsy
- ◯ Incision and drainage
- ◯ Packing and marsupialization
- ◯ Culture of exudate

_____ is a rapidly progressing, life threatening soft tissue infection that has pain that may be out of proportion to exam findings and causes bullae and a purple color to the skin.

Necrotizing fasciitis requires (medical/surgical) _____ emergency treatment.

Crepitus in necrotizing fasciitis is due to production of _____.

A 30-year-old man is brought to the emergency department with pain and discoloration of the right thigh. A week ago the patient was involved in a motor vehicle accident and suffered deep lacerations over the same region. The patient was evaluated at an urgent care facility afterward and a piece of scrap metal was removed from the right thigh. The appearance of the right thigh is shown . On palpation of the right thigh, there is tenderness and crepitus. Which toxin is most likely responsible for this patient's presentation?

(TRUE / FALSE) MILD FOOT ULCER INFECTIONS CAUSE SYSTEMIC ILLNESS

IF SOMEONE HAS LOCAL INFECTION (MORE EXTENSIVE OR INVOLVING DEEPER TISSUES)
- ABSCESS, OSTEOMYELITIS, SEPTIC ARTHRITIS, FASCIITIS
- NO SIRS (NO OR MILD FEVER AND NO WBC ELEVATION),
-ERYTHEMA >2CM AROUND ULCER
WHAT IS THEIR IDSA SEVERITY?

IF SOMEONE HAS LOCAL SIGNS OF INFECTIONS WITH NO SYSTEMIC SIGNS- LOCAL SWELLING OR INDURATION
- ERYTHEMA 0.5 TO 2 CM AROUND ULCER- LOCAL TENDERNESS OR PAIN- LOCAL WARMTH
- PURULENT DISCHARGE- INVOLVEMENT OF SKIN/SUBCUTANEOUS TISSUE ONLY
WHAT IDSA SEVERITY ARE THEY?

A 32-YEAR-OLD FEMALE PRESENTS TO HER FAMILY PHYSICIAN COMPLAINING THAT HER LOWER LEG FEELS HOT AND PAINFUL. PHYSICAL EXAM SHOWS THE LOWER LEG TO HAVE ERYTHEMA, EDEMA, AND IT IS VERY WARM TO THE TOUCH. THE ERYTHEMATOUS AREA IS NONELEVATED AND HAS POORLY DEFINED MARGINS. THERE IS NO DRAINAGE OR EXUDATES AND NO EVIDENCE OF ABSCESSES. SHE HAS NO RECOLLECTION OF ANY TRAUMA OR INJURY TO THE AREA. THE WOMAN HAS NORMAL VITAL SIGNS AND HER COMPLETE BLOOD COUNT IS NORMAL. SHE HAS NO KNOWN ALLERGIES.
WHAT IDSA SEVERITY ARE THEY?

oral antibiotics
necrotizing fasciitis
surgical
gas (Co2)
A toxin
false
moderate
mild
uninfected

PHARMACOLOGY

ANTIBACTERIAL

BACITRACIN	+	poorly absorbed through the skin, so systemic toxicity is rare . + (Hydrocortisone) , Frequently with (polymyxin B and neomycin
GRAMICIDIN	+	
FUSIDIC ACID	+	acts as a bacterial protein synthesis inhibitor
POLYMYXIN B SULFATE	−	“neurotoxicity and nephrotoxicity”
NEOMYCIN	−	Aminoglycoside antibiotics
GENATAMICIN	−	greater activity than neomycin in renal failure (because it is excreted by kidney)

Acne

most common skin diseases
psychological impact (depression)
Four main factors cause acne:
Excess oil (sebum) production.
Hair follicles clogged by oil and dead skin cells
Bacteria
Inflammation
Cutibacterium acnes (Propionibacterium acnes)
Comedonal Lesions -- Inflammatory Lesions--Nodulocystic Lesions --Scaring

- cream → sensitive or dry skin
- lotion → any skin type
- gel → oily skin
- solution → oily skin

Acne treatment

sali -ret - azel - clin- ery- metro - benz





Topical Retinoids — TOPICAL THERAPY

avoid in pregnancy ,at night
se : pustular flare • photosensitivity • skin irritation and erythema • dryness and peeling

Azelaic Acid — TOPICAL THERAPY

competitive inhibitor of mitochondrial oxidoreductases and of 5 alpha-reductase, inhibiting the conversion of testosterone to 5-dehydrotestosterone , decrease in pigmentation

Salicylic Acid 10 — TOPICAL THERAPY

as aspirin (salicylates) ,keratolytic
blocked skin pores to allow pimples to shrink , reduce swelling and redness

Benzoyl Peroxide — TOPICAL THERAPY

exhibits bactericidal effects against Cutibacterium acnes , at night

Clindamycin — TOPICAL THERAPY

in ribosome , 50 protein inhibitors
10% absorbed, so, possibility of Pseudomembranous colitis . well tolerated and less likely to cause irritation

Erythromycin — TOPICAL THERAPY

in ribosome , 50 protein inhibitors
Adverse local reactions to erythromycin solution may include a burning sensation

Metronidazole — TOPICAL THERAPY

Effective in the treatment of rosacea:
common skin condition that causes blushing or flushing
inhibitory effects of metronidazole on Demodex brevis
burning, and stinging , avoid eyes

SYSTEMIC THERAPY : FOR NODULOCYSTIC ACNE

Oral Antibiotics

Tetracycline 5
Doxycycline 1
Minocycline 1
Eythromycin

Hormonal Therapy

Isotretinoin (Accutane)

severe nodulocystic acne non responsive acne severe psychological distress

se : teratogenic, mucosal dryness photosensitivity arthralgias alteration of liver enzymes hypertriglyceridemia and hypercholesterolemia

expulsion of open comedones and the transformation of closed comedones into open ones

promotes dermal collagen synthesis, new blood vessel formation, and thickening of the epidermis, which helps diminish fine lines and wrinkles

Stabilizes lysosomes, increases RNA polymerase activity, increases PGE2, cAMP, and cGMP levels, and increases the incorporation of thymidine into DNA

DRUGS FOR PSORIASIS

TAZAROTENE : TOPICAL ANTI-INFLAMMATORY AND ANTIPROLIFERATIVE ACTIONS. TERATOGENIC

CALCIPOTIENE: SYNTHETIC VITAMIN D3 DERIVATIVE

ACITRETIN: GIVEN ORALLY. HEPATOTOXIC AND TERATOGENIC PATIENTS SHOULD NOT BECOME PREGNANT FOR 3 YEARS AFTER STOPPING TREATMENT, AND ALSO SHOULD NOT DONATE BLOOD.

DEUCRAVACITINIB : FOR ADULTS WITH PLAQUE PSORIASIS. ALLOSTERIC INHIBITOR OF TYK2

Side effects:runny nose, congestion, or sore throat, sore on mouth, lips, gums, tongue or roof of mouth, acne.

APREMILAST : AS A SELECTIVE INHIBITOR OF THE ENZYME PHOSPHODIESTERASE 4 (PDE4) AND INHIBITS SPONTANEOUS PRODUCTION OF TNF-ALPHA FROM HUMAN RHEUMATOID SYNOVIAL CELLS

Side Effects
- diarrhea
- nausea.
- stomach pain.
- vomiting.
- headache.
- sore throat, cough, and fever.
- sneezing, runny nose, and nasal congestion.

ROFLUMILAST : LONG-ACTING INHIBITOR OF THE ENZYME PHOSPHODIESTERASE-4 (PDE-4) FOR CHRONIC PLAQUE PSORIASIS

ALEFACEPT : BIOLOGIC , IMMUNOSUPPRESSIVE DIMER FUSION PROTEIN OF CD2 LINKED TO THE FC PORTION OF HUMAN IGG1

ETANERCEPT: BIOLOGIC , DIMERIC FUSION PROTEIN OF TNF RECEPTOR LINKED TO THE FC PORTION OF HUMAN IGG1

EFALIZUMAB : BIOLOGIC , RECOMBINANT HUMANIZED IGG1 MONOCLONAL ANTIBODY. • WITHDRAWN :PROGRESSIVE MULTIFOCAL LEUKOENCEPHALOPATHY (PML), • CAN CAUSE THROMBOCYTOPENIA

TAPINAROF : FOR ADULTS , ONCE DAILY

MINI TESTBANK

if a female patient takes ---------- for treatment of Psoriasis ,she should not become pregnant for 3 years after stopping treatment .

Select 1 correct answer

A Tazarotene
B Calcipotiene
C Acitretin

---------- is Effective in the treatment of rosacea

Select 1 correct answer

A Erythromycin
B Isotretinoin
C Metronidazole

---------- should not be given to a liver diseased patient to treat Psoriasis

Select 1 correct answer

A Acitretin
B Tazarotene
C Erythromycin

---------- a Biologic drug for Psoriasis can progressive multifocal leukoencephalopathy (PML)

Select 1 correct answer

A Alefacept
B Roflumilast
C Efalizumab

a 24 years old female work as a module depressed because of severe acne , and she needs a quick treatment , the best drug is ----------

Select 1 correct answer

A Metronidazole
B Clindamycin
C Isotretnoin

---------- convenient to treat plaque psoriasis in adults with Respiratory infection

Select 1 correct answer

A Tapinarof
B Deucravacitinib
C Apremilast

---------- should not be given to a patient with deficiency of platelets in the blood to treat Psoriasis

Select 1 correct answer

A Etanercept
B Metronidazole
C Efalizumab

what percentage of Salicylic Acid is the perfect one ?

Select 1 correct answer

A 25%
B 50%
C 2%
D 10%

C C A C C A C D