

## Ephelis

Ephelides (Gr. freckle)

- Normal number of melanocytes but hypertrophy and increased melanin production



- Flat, circular, spots - vary in color, red, yellow, tan, light brown

- Always darker than surrounding skin and more frequent in light complected

- Hereditary in some families

- Regular use of sunscreen may suppress

- Inconsequential provided diagnosis is correct



## Cafe au lait

“coffee with milk”, light to medium brown, hence name



- Flat, well demarcated, evenly pigmented
- More or less oval, long axis situated along cutaneous nerve tract
- Normal number of melanocytes but hypertrophy and increased melanin production
- Usually present at birth but may arise later in first few years and more common in black infants.
- Normal to have a few such spots
  - more than six spots greater than 1.5 millimeters in diameter in the pre-pubertal child greater than 5 mm in diameter in post-pubertal child - suggests diagnosis of neurofibromatosis
  - additional features required to make diagnosis



## Lentigo

- “liver spots” that appear beyond 30 or 40 years
- Most common in Caucasians
- Due to chronic sun exposure
- Distribution classically forehead, cheeks, nose, back of the hand or forearm, and upper back and chest



## **Actinic keratosis**



- Scaly crusty bumps
- Known as AK's and popular in television advertising
- Light or dark, tan, pink or red, or combination, or even skin color
- Crust dry, rough, occasionally itch
- Half will resolve if protected from sun
- Can be precancerous, official name is intradermal squamous carcinoma
- Not threatening provided detected and treated in early stages



## Actinic keratosis

### Treatment

- 5-FU (Efudex) topically bid for 3-4 weeks



- Imiquimod 5% cream for 12 weeks
- Cryotherapy, phototherapy, dermabrasion, or diclofenac gel
- 60% of squamous cell carcinomas arise from AK.
- Progression of solitary AK to squamous cell - 1/1000\*yr

## Seborrheic keratosis

- Benign wart-like growths on skin surface and described as resembling hot wax allowed to drip and set on skin



- Commonly appear after age 40

- Cause unknown

- May appear in large numbers

- Painless but may become irritated and itch

- Cosmetic problem and removal may be indicated

### Treatment

- freezing or shaving



## Achrochordon

- Skin tags
- Armpits, neck, groin
- More frequent with age



### Treatment

- Cosmetic
- excision at base, followed by AgNO<sub>3</sub> prn,  
but sometimes simple ligation will suffice

## Cutaneous horn

- Conical projection above skin surface composed of compacted keratin



- Base may be flat, nodular, or crater-like
- Results from hyperkeratoses that develops over surface of another lesion

- Other lesion most often:
  - actinic keratosis, about 30%
  - common wart, 20%
  - malignancy in 15 – 20%



If malignancy, squamous cell carcinoma most common, increasing to 33% if present on penis

## Treatment

- pare down w/ scalpel, cryotherapy, topical salicylic acid, duct tape
- Treating base properly with those measures will take care of any skin cancer



## Epidermal nevus

- Hamartoma arising from embryonic ectoderm



- Pluripotential cells differentiate into keratinocytes and also into cell-forming epidermal appendages

- Lesions may be:
  - deeply or slightly pigmented
  - unilateral or bilateral
  - often favor the extremitiesdermatomal pattern



- be found on oral mucosa and conjunctivae
- Onset usually at birth but also occurs in 20's or 30's
- Estimated one third of individuals have involvement of other organ systems and condition considered to be an epidermal nevus syndrome which may represent multiple entities

### Treatment (if required)

- Excision for cosmetic reasons and for historical concern of transformation to basal cell carcinoma, although this is rare

## **Acanthosis nigricans**

- May begin at any age
- Causes velvety light brown to black markings, usually on neck, under arms, or in groin



- Most often associated with obesity and most patients have high insulin levels thought to activate insulin receptors in skin causing it to grow abnormally
- Rarely associated with tumor, such as stomach, lung, breast, and uterus usually seen in unusual places such as lips or hands, and unusually severe

### **Treatment**

- Retin-A (cream, gel) may soften lesions
- Accutane in severe cases

## Keratoacanthoma

- Often starts at site of minor injury to sun damaged skin



- Appears as small pimple or boil with solid core

- Grows rapidly and when seen by physician, may be 2 cm in diameter

- Past sun exposure plays role, appears to arise from hair follicle, only seen on hair-bearing skin



- Minor injury seems required to trigger reaction but often either not apparent or unremembered

- Cells start multiplying in hair follicle and cell mass grows into keratoacanthoma

- Can be confused with squamous cancer but growth ceases after few weeks and then involutes leaving a scar

## Epidermal cyst

- Sometimes known as a sebaceous cyst (misnomer)



- Collection of keratin-like material derived from follicular cells usually cheesy or firm contained within the cyst wall not sebaceous

- Small communicating pore may not be easily visible

- Occurs on any skin surface but most common in face, back, or lobe of ears, or chest



### Treatment

Antibiotics if infected, or follow up for excision to include capsule, or incision and then curettage or extraction of capsule

## Syringoma

- Harmless sweat duct tumors
- Most often found in clusters on eyelids but may also arise elsewhere on face, armpits, umbilicus, upper chest and vulva



- Skin-colored or yellowish, firm, rounded, bump 1-3mm in diameter
- Start to appear in adolescence and more common in women
- Sometimes another affected member of family

### Treatment

- excision
- shaving
- electrodesiccation
- curettage



## And now for something completely different . . .

- 63 year old male and avid life-long runner

- Numerous uncatalogued injuries rappelling from rescue chopper in Vietnam



- Long history of left shoulder pain from “pumping arms” while running

- Awakened from sleep with moderately severe pain above left scapula for last 8 nights

## Images



## Returns for mri results



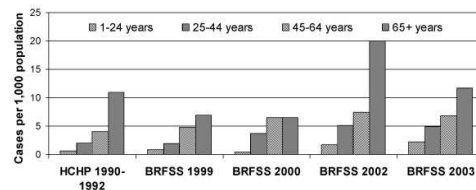


## Herpes zoster

- Double-stranded DNA virus related to Herpes simplex. Most are infected as children, developing chickenpox
- Immune system eliminates virus from most locations, but remains latent in dorsal root ganglia or ganglion semilunare



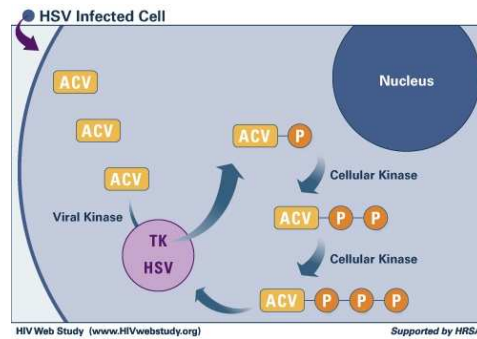
- Virus has not been recovered from human nerve cells by cell culture and location and structure of the viral DNA not known



- Vast majority > 50 years
- Repeated attacks can occur but more than 3 recurrences extremely rare
- Why immune suppression fails is poorly understood
- Not infectious before blisters but then extremely contagious until crusts
- Postherpetic neuralgia (pain more than 3 months) related to age, 40% > 60 yrs

## Treatment

- Antiviral drugs inhibit VZV replication and reduce severity and duration with minimal side effects



- Do not reliably prevent postherpetic neuralgia
- Recommended for immunocompetent individuals over 50 within 72 hours of rash
- Corticosteroids frequently used despite unconvincing clinical trials
- In postherpetic neuralgia, no difference between acyclovir plus prednisone, or acyclovir alone

## Prevention

- Live vaccine (Zostavax) prevents 50% of zoster, reduces postherpetic neuralgia by 66%
- Immune boost from contact with children infected with varicella, preventing about a quarter of cases among unvaccinated adults
- Population-based varicella immunization not practiced in UK
- Antibodies measured in women without chickenpox history, prenatally, and immunized if naive
- By 2005, immunity of NHS personnel determined and immunized if non-immune and had direct patient contact

