BENIGN & MALIGNANT LESIONS OF THE SKIN  
Dr. Qattan's lecture transcript  
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* Benign:
  + Nevus
    - حبة الخال
    - Everyone will have one (junctional)
      * If large , it is congenital melanocytic nevus ( premalignant)
    - Intradermal (with hair coming out of it) : abnormal melanocytes situated inside dermis)
    - Compound (junctional & centrally intradermal)
    - Dysplastic:
      * Color not uniform
      * Edge not well defined
      * Size >0.5 cm
      * CAN TURN to Melanoma
      * Dysplastic nevus syndrome (Autosomal Dominant):
        + 100s of dysplastic nevi ( you can't excise them all)
        + Regular screening of nevi:

Size

Change in color

Itching

Bleeding

Elevation in size

* + - Giant hairy nevus:
      * Usually one big nevus
      * Too much Hair like scalp hair
      * 2-3% melanoma
      * If possible, excise it & do skin graft OR  do regular chekup
  + Fatty tumors  (lipomas)… very common
    - White mature cell (Lipoma (we see most of the time)
      * 99% non syndromal
        + SUBCUTANEOUS (most common):

Diffuse: no well defined capsule

Localized

* + - * + SUBFACIAL
        + INTRAMUSCULAR
        + INTRASYNOVIAL
        + INTRANEURAL….
      * 1% syndromal (Liposuction is a possible treatment for them)
        + Familial multiple lipomyomas (painless)
        + Dercum Disease:

Multiple lipomyomas

Painful

Negative family history

* + - * + Madelung disease:

Multiple symmetric lipoma (shoulder & neck areas most common)

Genetic (Not in Arabs)

It only shows in drinkers

* + - * (Malignant): Liposarcoma:
        + Usually retroperitoneal
        + Seen as a mass
        + Late presentation
    - White immature cell
      * LipoBLAST
      * Infants can have fatty tumors (LIPOBLASTOMAS)
    - Brown fat cell (full of mitochondria)
      * Look brown
      * Babies & hibernating animals
      * Adult develop tumors of remnant (**hiber**inoma (named form**hiber**nating animals)
  + Vascular tumors (hemangiomas,,,)
    - Hemangioma
      * Born with no lesion
      * Develop Big vascular strawberry lesion
      * Regress (by 4 years & involutes by 7 years) may leave thin abnormal skin
      * Conservative management EXCEPT:
        + Recurrent bleeding
        + Mouth
        + Anal
        + Eye (to prevent amblyopia if light can't go through)

We give intralesional steroids, if didn't resolve we do surgery

* Vascular malformation (baby born with it)
  + Capillary: Port wine stain:
    - Comes in face
    - Associated with :
      * Epilepsy: abnormal vessels in brain
      * Glaucoma: abnormal vessels in drainage of the eye (near canal of schlemm in the eye )
      * If Port wine+ epilepsy + glucoma along with trigemenal nerve problems: sturge weber syndrome
    - Treatment: laser >>>color will disappear, coagulate capillary
  + Venous (cavernous):
    - Swelling
    - Bluish
    - You squeeze it, it will get bigger
    - Get bigger with standing (gravity)
    - Seen in head & neck
    - Treatment
      * Sclerotherapy
      * Surgical incision
  + Lymphatic
    - Types:
      * Diffuse (in legs) ,, confused with lymphedema
      * Localized (in neck & axilla)  (cystic hygroma)
    - Treatment:
      * Scelerotherapy
      * Surgical incision
  + Arterial: very rare, pulsating
  + Arterio-venous fistula, pulsating:
    - Upper limb
    - Pulsating

* Neurofibromatosis (von Recklinghausen disease)
  + AD (may become a new mutation in the member)
  + Coming from small nerves of the skin
  + Multiple schwanoma
  + Caffe- oleit spots
  + Gliomas
  + If a tumor is LARGE, can turn to neurofibrosarcoma)
  + Type I
    - In chromosome 17
    - **Lisch nodule**(in the iris)
  + Type, II
    - In chromosome 22
    - **Bilateral acoustic neuroma**

* Malignant: (origin, predisposing, etiology, clinical presentation, classification in clinical, histology, staging of the patient, treatment, prognosis)
  + Basal cell (Rodent ulcer)
    - Predisposing factor:
      * Sun Exposure is the MOST COMMON CAUSE
      * Syndromic: Nevoid basal cell carcinoma syndrome (Gorlin) Syndrome:
        + Autosomal dominant
        + Classic palmer pits
        + Notches of the ribs
        + Calcification of falx cerebri
        + Mandibular tumors (odontogenic keratocysts)
        + Skin full of basal cell carcinoma
    - Clinical Picture:
      * Most common: noduloulcerative:
        + rodent ulcer,
        + edges have telengacasia
        + Start as Nodule, then ulcerates in the middle
      * Cystic
      * Pigmented (can be confused with melanoma)
      * Morphea (like scar, spreading scar without injury)
        + Spreads more quickly
        + Edges not clear
        + Bigger margin on excision
    - Histological classifcation:
      * Adenoid (looks like glandular)
      * Ulcerative / Noduloulcerative
      * Cystic
    - NO TNM
    - Locally invasive, doesn't metastasize :
      * In some cases,  it rarely metastasize and that's if it goes into squamous metaplasia
    - Treatment:
      * Non surgical (especially in white people living in hot places, because they have small multiple lesions):
        + Electrodessication
        + Liquid nitrogen
        + Cautery

In case of Field change whole skin reddish, angry, tiny spots of cancer, they use

* CO2 laser, to burn the skin (side note: used in old ladies to make them look younger by burning their skin and making tighter skin!!!!)
* 5 Flourouracil (5FU) topical
* Surgical Excision:
  + Especially if you have a big lesion (even if it's radiosensitive you excise because no need to expose to radiation and you can do simple surgery)
  + Take 2 mm margin
* Prognosis: excellent
* Squamous cell:
  + Predisposing factors:
    - Sun
    - Xeroderma Pigmentosa:
      * Autosomal recessive (found in many Saudi families)
      * problem in repair of DNA (p54 system)
      * Treatment:
        + Excise face skin, then Skin graft from their put (area never exposed to sun)
        + Leave Saudi Arabia, live in Northern Canada,
      * Prognosis: if exposed to sun regularly, they DIE!!!
    - Actinic keratosis:
      * White farmers get it in back of their hand
    - Margolin Ulcer:
      * Squamous cell carcinoma in chronic wound (burn scar that's contracted, pressure soar)
  + Clinical classification:
    - Nodule
    - Pigmented nodule
    - Ulcer (margin ulcer)
    - MOST COMMON: keratinic skin lesion: skin horn :: like horn of animal
  + Histological Classification:
    - Well diffrentiated
    - Moderately differentiated
    - Poorly differentiated :: WORST PROGNOSIS
  + TNM:
    - Metastasize go to lymph node, then to blood (DIFFERENT FROM SARCOMA)
    - Metastasis:
      * Liver
      * Lung
      * Bone
  + Management:
    - Check lymph node,
    - Metastatic workup:
      * CXR
      * CT Chest
      * Liver ultrasound / Liver CT
      * LFT

If all negative, check::

* Sentinel lymph node biopsy:
  + In 99% works well, sufficient
  + Steps:
    - Inject radioactive substance day before substance,
    - With a probe, You make a mark to the area of accumulation (LYMPH NODE)
    - In day of operation inject the lymphatics with blue dye
    - Remove the tumor with lymph nodes up to the mark you made
  + Histopathology results:
    - If negative: just remove the tumor
    - If positive: completion lymph node dissection
* In operation, take 0.5 cm margin
* Post op radiotherapy (squamous cell carcinoma is radiosenesitive)
* Prognosis: depends on the TNM stage
* Melanoma (ALWAYS MCQ):
  + Etiology:
    - Melanocytes
  + Predisposing factors
    - Sun exposure
    - Xeroderma Pigmentosa
    - Nevi:
      * Large junctinal nevus
      * Dysplastic nevi
      * Giant hairy nevus
  + Clinical:
    - Superficial spreading:
      * Elevated, tiny
      * Spreads radially
      * Less chance of metastasis, less penetrating of capillaries
    - Nodular:
      * Grows vertical
      * More metastasis
    - Special types:
      * lentigo maligna:
        + Benign, Premalignant lesion
        + Brown patch seen in old lady
        + If get malignant: lentigo malign melanoma: BEST prognosis:
      * Acral lentiginous melanoma:
        + Hands, feet, genital
        + Most common presentation of melanoma in Saudi is in feet
        + Seen more in blacks: (because sole of feet is lighter in color, doesn't protect from melanoma)
        + ALMOST ALWAYS NODULAR
        + Subtype: Subangual melanoma;

Black color under nail

Take it seriously

* + Histology:
    - Brislow (according to vertical depth)
      * Brislow 1: <0.75 mm (almost melanoma in situ)
      * Brislow 2: multiply by 2 : **0.75 - 1.5 mm**
      * Brislow 3: 1.5 mm - 3 mm
      * Brislow 4: >3 mm
    - Clark (anatomical)
      * In epidermis: clark 1
      * In upper dermis: papillary dermis : clark 2
      * In Lower dermis: reticular dermis: **CLARK 4**(if in junction between papillary & reticular, class 3)
      * If invades subcuaneous fat: CLARK 5

For prognosis wise: Brislow is more indicative

* TMN
  + Metastasis:
    - Liver
    - Lung
    - Bone
    - brain
* Management: (RADIO RESISTANT TUMOR)
  + Check lymph nodes
  + Metastatic work up
  + Sentinel lymph node biopsy
    - If positive, completion lymph node dissection
  + Margain:
    - Brislow 1: 2-3mm
    - Brislow 2: 0.5 cm
    - Brislow 3: 1 cm
    - Brislow 4: 3 cm
  + May give palliative radio/chemo
* Prognosis: depending on Brislow staging, if early curable, if late, it's deadly