### **Case Studies**

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Winograd Procedure

Mucoid Cyst excision, removal of Scar tissue, Plantar Wart excision, Lipoma, Granuloma and Morton's Neuroma decompression

Foot Health Clinic and Custom orthotics

We Cure...Because we care

WWW.Foothealthclinic.ca (905)459-3668

### Basic Principles of surgery

- ☐ Proper clinical setting, equipment and support staff.
- ☐ Patient's history, assessment and proper diagnosis.
- □ Patient's understanding of the procedure, risk factors, post op recovery and prognosis.
- ☐ Plan the procedure ahead of time.
- ☐ Informed consent
- □ Skin preparation, sterile environment, safe use of equipment, post op bleeding, care and dressing.
- ☐ Handle the skin and tissue with upmost respect.
- □ Post op instructions and care till wound is completely healed.

#### Procedure room...









### Reoccurring IGT nails - Etiology

- ☐ Failed previous PNA
- ☐ Poor footwear -Acquired
- Underlying biomechanical factor Unilateral OC
- Hyperhidrosis
- ☐ Involution Smoking and respiratory disorders
- Malnutrition
- Heredity

### Winograd Procedure For IGT

#### Indication:

- -Reoccurring of IGT nail.
- -Excessive HG tissues present.
- -Periungual skin hypertrophy.
- -When conventional PNA failed.
- -Best for long term and cosmetically.
- -Still first choice by most of the surgeon.

### Severe OC and HG tissues



### WinoGrad procedure





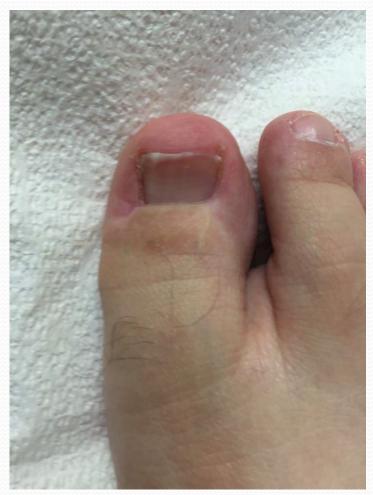
### Three weeks FU





### Six months later





### Wino grad Procedure



### Wino grad Procedure





### 15 yr Old with reoccurring IGT





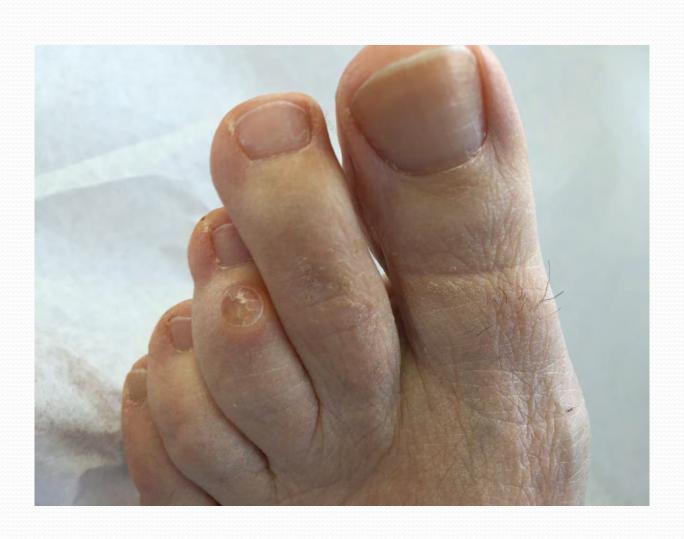
#### Digital Mucoid Cysts

- Mucoid cyst are associated with irregular, satellite shaped fibroblast that are dispersed in a Myxomatous stroma surrounded by the normal dermal tissue.
- ☐ There are two variations
  - 1. Occurs over the joint capsule
  - 2. Proximal to the nail folding.

### Case 2 - Mucoid Cyst

- 45 years old pt was referred by family Dr for reoccurring blister from last couple of years.
- ☐ YOM with GGH
- Very active on her feet all day at work, wears casual dress shoes.
- BMI 19

## Case 2 – Mucoid Cyst



### Single lobe Skin marking



# three months follow up





### Some more cases...



# Eight weeks later





# Mucoid Cyst...





### Mucoid Cyst...six week later





### Scars Tissue...

- The skin undergoes the normal healing process after surgical incision or injury – SCAR PROCESS
- ☐ Full thickness/Incision the skin heals by scar formation.
- Normal scar is usually thin, soft, normal skin color and asymptomatic.
- ☐ Some surgical procedure will heal with the pathological scar formation.
- ☐ Scars are inevitable result of injury/Trauma or surgery and never completely predictable.

### Surgical removal of painful HK Scar tissue

- □ 58 years old pt with left heel painful scar resulted from the prior injury to the foot.
- WE Packaging, on her feet with safety footwear. Very active life style and BMI 23
- ROS HT and high TG
- Meds –HCTZ and Lipitor and allergic to Sulpha group
- □ Patient preparation for procedure Supine position, LA, pre op and ankle tourniquet applied.

### Case 3 - Left heel hypertrophic scar tissue



# Cal N, Sural block with LI...





### Lesion and single lobe Flap Marking

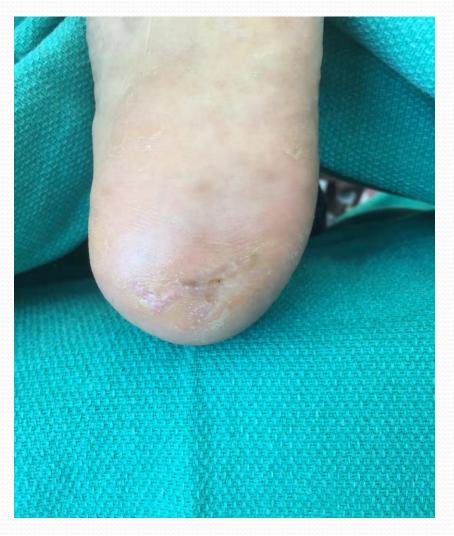


### Closure 4-0 Suture/Steristrip



## Eight weeks FU





#### **Plantar Warts**

Planter warts occurs on the sole of the foot, affecting all age groups and often require treatment.

- Plantar warts are caused by HPV1, HPV2 and HPV4
- Can be misdiagnosed as a corn
- 30-35 percent of warts occur in children and YOM
- Persons with compromised immune system are more vulnerable
- Warts are more common in people with sweaty feet
- Plantar warts usually are flattened or pushed into the skin due to pressure, may become painful
- Warts are contagious

### Types of warts

Single



Mosaic(HPV2)



Multiple



Filiform



### Example of resistant warts











### **Plantar Warts**





### Wart???





# Treatment of Plantar Warts Clinic protocol

- Surgical Debridement
- ☐ Topical Caustic agent
- Laser surgery under LA???
- ☐ Dry Needling under LA
- Surgical excision

### Dry Needling Method

- Success rate is over 80 %
- Recommended for resistant warts





### Case 4 - Wart Excision





## Three months later





#### Lipoma

- Most common fat cell tumor, can occur any part of the body.
- More common in the female and usually occur in the 4<sup>th</sup> or 5<sup>th</sup> decade.
- □ Lipoma may size from few mm to cm. Soft , movable and appears subcutaneously. Usually they are encapsulated in the adipose tissues.
- ☐ May appear single solid lesion or multiple.
- Most lipomas are asymptomatic, but can be very painful if located on weight bearing aspect or grow close to the nerve

# Lipoma





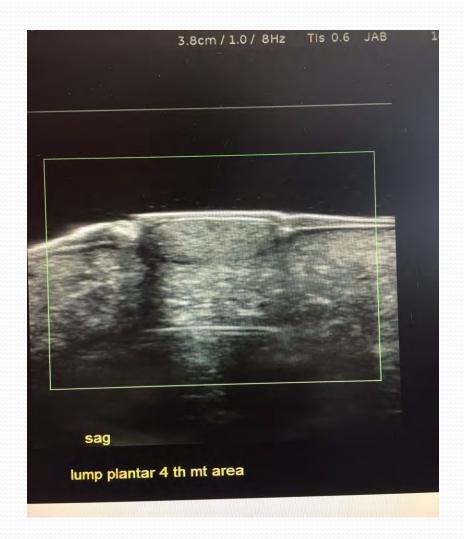
# Lipoma





# Male 41 year old pt, painful lipoma





# Eight and Sixteen weeks



# 70 Years old patient





# Lipoma – 14 days Post op





- Rapidly growing oink to bright red vascular lesions
- Commonly mistaken for malignant growth
- ☐ They are neither infectious nor granulomatous.
- Occur in young children and young adults
- Lesions are very fragile, bleed easily, varies in size few mm to cm and very painful

#### **Etiology:**

- ☐ Most likely cause by the micro trauma
- May appear next to the IGT nail





#### Granuloma associated with OC



# Case 6 - 36 years old patient with GGH and BMI 22

















## Interdigital Morton's Neuroma

- ☐ Nerve impingement at the inter metatarsal space
- Over 90% Neuromas occur at 3<sup>rd</sup> and 4<sup>th</sup> ID space
- ☐ Burning sensation with pl pressure and pain relieved with the removal of footwear
- Other symptoms include parathesia, total numbness and pain radiates to adjacent toes

#### **Etiology:**

Biomechanical and structural deformities which increases the FF transverse plan motion, cause extreme shearing and compression stress on the nerve.

#### Treatment of Neuroma

- Conservative
- Custom made orthotic devices, if orthotic therapy revaluate and close all the gaps.
- -Dehydrated Alcohol Injection.
- Cortisone injection
- Patient education
- ☐ Surgical approach
  - Nerve decompression (TML release)
  - Surgical excision of pl nerve

### Morton's Neuroma Decompression

□ *KobyGard System* is design to easily isolate and safely cut the Transverse Metatarsal Ligament in order decompress the plantar nerve.

This is most minimal invasive nerve decompression system

# Case 7 - 24 years old pt with Morton's Neuroma from two years. Pt prep...



# Nerve Decompression





### Surgery outcome...

Final surgery out come of any surgical procedure is unknown until healing is complete and scar remodeling has taken place.



# KobyGard Procedure

