

### Key Characteristics

#### Warts

1. Upon close observation skin striae will typically course around plantar verruca or cause some deviation.
2. When a wart is debrided the petechiae will hemorrhage causing pinpoint bleeding.
3. Plantar warts typically will have pain on lateral compression, this is not reliable because any inflamed lesion will also have pain.

#### Intractable Plantar Keratosis (IPK)

1. IPK's typically have a deep core visible on debridement. This core will communicate with an osteophyte or other bony prominence.
2. If these are misdiagnosed and treated destructively as a wart, a painful scar is not uncommon.

#### Porokeratosis

1. Porokeratosis are the most difficult to distinguish from a plantar wart.
2. There are no petechiae and skin lines are normally not deviated.
3. Upon debridement there is a deep core present and no pin point bleeding.

#### Amelanotic Melanoma

1. Variations in appearance complicate a certain diagnosis. They can appear as an ulceration, hypertrophic area, or soft tissue mass.
2. I look for rapid changes in size and appearance without explanation.
3. If I have any question of my diagnosis, I biopsy the lesion.

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### Plantar Warts: The List of Differential Diagnosis

Plantar warts occur commonly on the bottom of the feet, however a precise diagnosis can be difficult. A differential diagnosis should include intractable plantar keratosis, plantar warts, porokeratosis, and amelanotic melanoma. Each of these lesions can have a very similar appearance, even though the etiology is significantly different.

Plantar warts are caused by the human papilloma virus infecting dermal cells. Intractable Plantar Keratosis (IPK) are related to pressure form osseous structures in the foot. IPK's can have many appearances from a lucent core to various stages of an ulceration. Porokeratosis are very difficult to differentiate from plantar warts. Porokeratosis do not have petechiae, but in some cases it is difficult to visualize petechiae in plantar warts.

#### Key Differences

1. Upon close observation skin striae will typically course around plantar verruca or cause some deviation.



Plantar wart with deviation of striae

2. When a wart is debrided the petechiae will hemorrhage causing pinpoint bleeding.
3. IPK's communicate with an osteophyte or other bony prominence. These are most common around the ball of the foot.
4. Plantar warts typically will have pain on lateral compression, this is not reliable on its own
5. Anything looking suspicious

is biopsied in my office, melanomas can be fatal.



Cluster or Mosaic Wart with autoinoculation



Intractable Plantar Keratosis (IPK)

### Treatment of Plantar Warts and Other Skin Lesions

Treatments of plantar warts include cryotherapy, various topicals, laser treatments and surgical excision.

Cryotherapy has been used for years and is very effective with liquid nitrogen. The aerosol cryotherapy treatments are not nearly as effective.

Topical treatments come in many different forms, most are

salicylic acid preparations, while other are combinations of plant extracts like Canthacur PS.

Canthacur PS has been very effective in my office, there is no pain at the time of application, but as the tissue blisters it can become painful. In my experience the size and type of wart will usually dictate the number of applications required.

Surgical excision of plantar warts is very effective, but can be complicated by wounds and scars along the weight bearing surface of the foot. Hypertrophic scars on the ball of a foot are difficult to treat and limit mobility.

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