



Wound Sleuth

By Robyn Evans, BSc MD CCFP FCFP and Ahmed Kayssi, MD MSc MPH CWSP FRCSC FACS

Diagnosing A Newly Developed Ulcer On The Dorsum Of The Toe

How to cite: Evans R, Kayssi A. Wound Sleuth: Diagnosing a newly developed ulcer on the dorsum of the toe. *Wound Care Canada*. 2023;21(1): 69-70. DOI: <https://doi.org/10.56885/SWYT4572>.

Diabetic foot ulcers are quite common, occurring in 25% of diabetic patients. Managing these patients and their ulcers can be challenging. Presented here is a case of a soft tissue anomaly that occurred in a diabetic foot ulcer.

History

RW is a 58-year-old male with diabetes type 2 for the past 12 years. He has had previous diabetic foot ulcers complicated by osteomyelitis. He presents to a walk-in clinic with a new ulcer on the dorsum of the third toe. He is treated with a course of antibiotics for two weeks. He is referred to our wound clinic due to the development of a pedunculated mass at the base of this ulcer. He reports the mass developed quite quickly over two weeks, bled easily, was very wet and was painful due to rubbing on the top of his shoe.

Physical Examination

Physical examination and history revealed the following:

- Bandages soaked with serosanguinous fluid, staining his running shoe
- Afebrile, no systemic symptoms
- Dorsalis pedis and posterior tibial pulses are palpable
- Previous vascular studies had been normal in 2020
- Fleshy friable soft tissue mass protruding from the dorsum of the third toe (see Figure 1).

Management

The soft tissue mass was excised and sent to pathology; bleeding was controlled with electrocautery; and moxifloxacin was prescribed. The chiropodist dispensed a soft surgical shoe to prevent friction and pressure over the ulcer. X-rays were done and RW was asked to return in one week. Figure 2 clearly shows the 'sausage'-shaped toe X-ray confirmed the clinical diagnosis of osteomyelitis. Pathology

also confirmed the diagnosis of a pyogenic granuloma. Using a hand-held thermometer there was a 6°F temperature difference compared to the same site on the right foot. The ulcer was not probing to the bone. He remained on moxifloxacin for six weeks. Figure 3 shows clinical evidence of improvement in the swelling and erythema of the toe with no evidence of recurrence of the pyogenic granuloma at the three-week follow-up visit.

What Is Pyogenic Granuloma (PG)?

Pyogenic granuloma (PG) is also known as lobar capillary hemangioma. These are benign lesions that tend to develop quickly over the course of a few weeks.¹ They rarely exceed one centimetre. The skin most commonly involved in the development of PG is the mucosa. The surface frequently erodes and bleeds easily. The cause of PG is not known, however it is associat-



Figure 1: Initial presentation



Figure 2: One week later



Figure 3: Three weeks later

ed with trauma, certain medications, chronic wounds and infections.² Other lesions that may be confused with a pyogenic granuloma are: amelanotic melanoma, Kaposi's sarcoma, hemangioma, glomus tumours and warts.¹

Treatment options have been reviewed. Surgical excision provides the lowest overall recurrence rate and provides a sample for histological confirmation for diagnosis.² Other options, such as cryotherapy and silver nitrate, have also been used.³ RW's risk factors for developing this lesion were the location of

the original ulcer causing friction from his footwear as well as the infection/osteomyelitis.

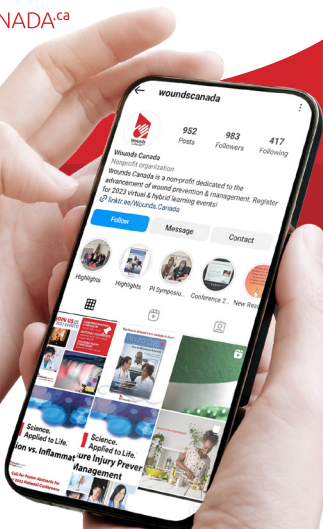
A review of the literature did not indicate the incidence of PG occurring in a diabetic foot ulcer. 🩹

Robyn Evans BSc MD CCFP, FCFP and **Ahmed Kayssi** MD MSc MPH CWSP FRCSC FACS are Wound Physicians, Women's College Hospital Wound Healing Clinic, Toronto, ON.

References

1. Bologna JL, Jorizzo JL, Rapini RP. Dermatology. 2nd ed. Bologna JL, Jorizzo JL, Rapini RP, editors. London, England: Mosby; 2014.
2. Lee J, Sinno H, Tahiri Y, Gilardino MS. Treatment options for cutaneous pyogenic granulomas: A review. *J Plast Reconstr Aesthet Surg* [Internet]. 2011;64(9):1216–20. Available from: <http://dx.doi.org/10.1016/j.bjps.2010.12.021>
3. Mirshams M, Daneshpazhooh M, Mirshekari A, Taheri A, Mansoori P, Hekmat S. Cryotherapy in the treatment of pyogenic granuloma. *J Eur Acad Dermatol Venereol* [Internet]. 2006;20(7):788–90. Available from: <http://dx.doi.org/10.1111/j.1468-3083.2006.01615.x>

Stay connected!



Get on the Wounds Canada mailing list!



To receive notifications, information, invitations and more, send an email to info@woundscanada.ca.

Follow us on social media!



Wounds Canada:

Facebook: www.facebook.com/woundscanada

Twitter: [@woundscanada](https://twitter.com/woundscanada)

YouTube: www.youtube.com/@CAWCnet

Instagram: [@woundscanada](https://www.instagram.com/woundscanada)

LinkedIn: www.linkedin.com/company/woundscanada/



ADVANCED WOUND CARE

Color changes from black to white as the iodine is released.

Let iodine take biofilm to task.

IoPlex® allows for regulated and sustained infection management through proprietary I-Plexomer™ technology that slowly releases iodine within the wound dressing.

In-vitro testing showed that IoPlex had a greater than 4 log reduction against *S. aureus* and *P. aeruginosa* biofilm strains.¹ Clinical significance of these findings have not been determined.

Unlock healing potential with IoPlex.

Ask your Medline Representative for a product trial.



Medline Canada, Corporation | 5150 Spectrum Way, Suite 300, Mississauga, ON, L4W 5G2 | 1-800-268-2848 | medline.ca

¹ Data on file. Available upon request. © 2023 Medline Industries, LP. All rights reserved. Medline is a registered trademark of Medline Industries, LP.

I-Plexomer is a trademark and IoPlex is a registered trademark of Progressive Wound Care.

MKT19W693777 / 15 ADWCJ23PREN0623JC