case studies

VISUALDX IN PRACTICE

"After multiple hospital visits and misdiagnosis during those visits, the patient finally received a definitive diagnosis and admission for the treatment and management of a life-threatening disease. I am not sure I would have had the rare diagnosis of disseminated gonococcemia on my initial differential diagnosis if it were not for the VisualDx Differential Builder. The ability to develop a broad, symptom-based differential using VisualDx is a prominent tool in my arsenal to take care of patients with a nonspecific rash."

S.M. MD, Emergency Medicine

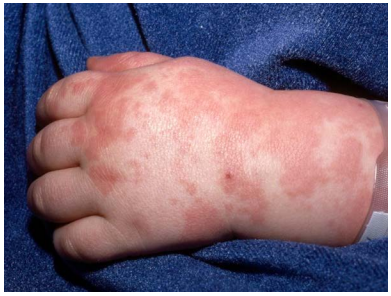
visualDx®

A 15-month-old infant came in on her third day of illness with a fever. She was coughing a little and had diarrhea so I was thinking this was just a garden-variety viral illness. What threw me for a loop was her rash. It was generalized confluent over her hands, feet, groin area, and back. It looked very much like hives, which can happen with just such a viral illness. So I sent her home with antihistamines and close follow up.

The next day she came in again, this time her mom said the rash was worse and her lips were a bit swollen so I threw that in to my differential in VisualDx and, low and behold, Kawasaki's disease came up. I got some lab work and I told the mom to come back the next day. I'm glad she did because it turned out her sclera were now injected and she had a strawberry tongue and that pretty much clinched the diagnosis.

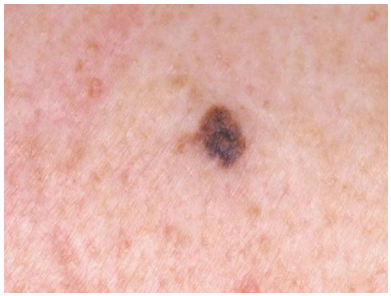
She is now getting her treatment and so far she's doing well. I credit VisualDx for reminding me to think about this rare disorder in a timely manner. Thank you.

A.D. MD, Pediatrics



I am the Medical Director at our family medicine residency. A resident came to me yesterday wanting me to look at a patient's skin lesion. He was only vaguely familiar with VisualDx. I opened up the site on my computer and we walked through the process of gathering a diagnosis. The resident had the diagnosis and a print out of the diagnosis when he went back into the exam room. I accompanied him to confirm the correct diagnosis. Diagnosis of lentigo simplex. Just this simple case was all it took to "sell him" on the value of VisualDx.

S.M. MD, Medical Director, Family Medicine Residency



I am an emergency physician working in a major metropolitan city in Southwest Texas. Working a busy regional referral hospital, many Texans from surrounding counties come to us as a last-ditch effort for their ailments. Such was the case when an otherwise healthy 26-year-old female came to me with a chief complaint of a chronic rash.

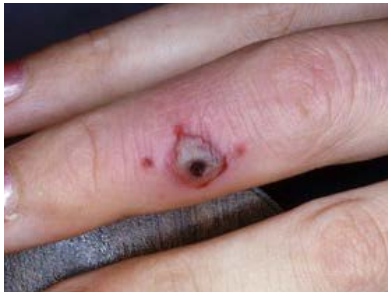
The young woman had been seen by other healthcare providers at least 3 times prior to arriving to our ED for care. Her complaints each time were a painful disseminated rash that had been present for over 3 weeks. She had previously been diagnosed with an allergic reaction, dermatitis, and herpes zoster, with failure to the prescribed treatment to those respective treatments. With increasing pain and a worsening rash, her frustration was growing.

She presented to us tearful, anxious, and with a fever (100.6°F [38.1°C]) and a rash that was papular and hemorrhagic as well as necrotic, primarily on her extremities. The lesions were painful and appeared to be in different stages of development. The remainder of her exam was benign except for a mild tachycardia of 105. As I do on most rashes that are not clearly urticarial or allergic in nature, I turned to VisualDx to help me develop a differential. Using the VisualDx Differential Builder, I was able to develop an appropriate differential which included the rare diagnosis of disseminated gonococcemia.

After multiple hospital visits and misdiagnosis during those visits, the patient finally received a definitive diagnosis and admission for the treatment and management of a life-threatening disease. I am not sure I would have had the rare diagnosis of disseminated gonococcemia on my initial differential diagnosis if it were not for the VisualDx Differential Builder. The ability to develop a broad, symptom-based differential using VisualDx is a prominent tool in my arsenal to take care of patients with a nonspecific rash.

Besides the online version, I have VisualDx on my iPad and iPhone to share images with patients at the bedside in real time. I use VisualDx on almost every shift, and it remains a powerful tool for my colleagues and me.

S.M. MD, Emergency Medicine



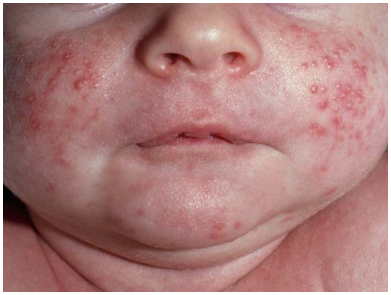
I received a call from a PCP wanting to admit a newborn with a progressive rash on her face. She noted that the parents, being first time parents, were understandably anxious at the idea of their newborn receiving a full septic workup – which was the plan from the pediatrician.

Upon meeting the family, both parents were clearly scared and uneasy with being back in the hospital all too soon. As we discussed the plan, anxiety and tears grew at the thought of blood work, CSF cultures, and IV antibiotics.

As I left the room, I couldn't help but think that I had seen this child's rash before. I quickly opened my VisualDx app and searched for Neonatal Acne. The resultant set of pictures was an exact match. Well I all but ran back into the room with a big smile of relief on my face. Both parents became more distressed at my calm, happy demeanor.

I showed them the pictures. They both asked, "why did you take pictures of our daughter?" I laughed and explained where the pictures had come from...and then more importantly explained that this rash would clear on its own with no necessary interventions. Their smiles that ensued all but made my day. When Pedi Derm saw and also agreed, they left the hospital relieved and excited to have their baby girl back home safe and sound.

J.A. MD, Pediatric Hospitalist Fellow

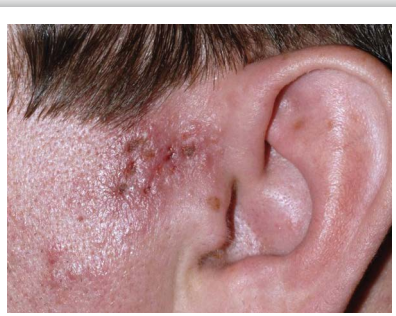


A 25 year old male with no pmh recently was started on ssri. Pt came in complaining of a rash that developed on his ear and pustules. Pt was concerned that this was perhaps correlated to his new medication use. I reviewed herpes zoster oticus (HZO) photos and despite his young age and the low prevalence of HZO in this patient age group, the pictures clearly confirmed his presentation.

Furthermore he followed up at a local ED as his symptoms progressed over the weekend and the lesions were also diagnosed as HZO. The patient completed treatment but went on to develop Ramsey Hunt. He was referred to a specialist but completely regained sensation and function of the involved nerves.

Prompt diagnosis made when I first evaluated this pt with the accessible, efficient VisualDx app enabled me to quickly diagnose and manage this pt with complete recovery and no residual effects of Ramsay Hunt Syndrome.

M.K. PA, Family Medicine

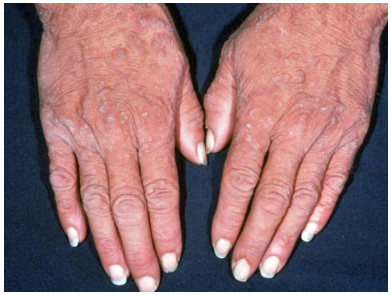


We have a 56-year-old woman who presented for evaluation of a widespread eruption that has been present for over 30 years. Prior medical history was remarkable for diabetes, hypertension, and recent stroke. She denies pruritus, and the eruption is mainly asymptomatic, but progressive. The patient uses only OTC moisturizers to treat the eruption. Over the years, according to the patient, the eruption has not changed significantly and has never cleared. On examination, she has widespread well-defined thin keratotic flat pink-brown plaques involving the neck, trunk and extremities. No lesions are present on the face. Lesions on the dorsal hands appear more pink, scaly and confluent. There is no involvement of the nails or mucosal surfaces.

We were unsure about this rash, so decided to use the "Differential Builder" in the VisualDx app on the iPad. We chose "Adult Rash," "Scaly Papule/Plaque," as visual findings, and "Trunk, Hand or Fingers, and Arm" as body locations and started looking through the images. We came across pictures of "Epidermodysplasia Verruciformis", which looked very similar to our patient, so considered this on our differential diagnosis. A 4 mm punch biopsy was performed on the right lateral abdomen. Pathology showed acanthosis, papillomatosis and hyperkeratosis, with a moderate perivascular lymphocytic inflammatory infiltrate and mild koilocytosis, consistent with epidermodysplasia verruciformis.

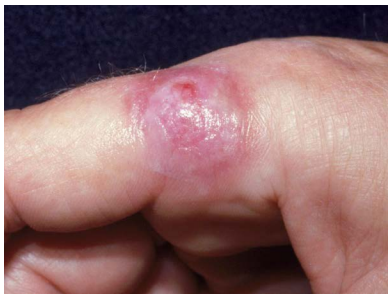
Thanks to VisualDx, we started to consider this disease as a possibility for our patient, which was then confirmed by biopsy.

M.B. MD, Dermatology

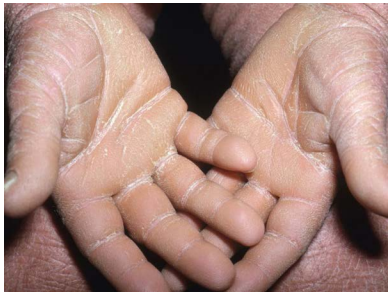


I saw a patient referred to me to remove a basal cell carcinoma of his finger. Using VisualDx I came to the conclusion that he had a Milker's nodule on his finger as he was raising a calf that needed extra feeds and medicine and the calf was licking his fingers. I was convinced that it was a parapox virus infection and that it would resolve by itself after 6 weeks. It did. Patient was very impressed.

E.E. MD, Internal Medicine



A 64-year-old Caucasian male with past medical history of hypertension and hyperlipidemia but no history of allergies (drug, seasonal, or other) presented to the dermatology clinic at the VA Medical Center in Providence, Rhode Island complaining of bilateral periorbital erythema for several weeks. Initially, it appeared like allergic versus contact dermatitis, and we extensively explored environmental and chemical contacts with which the patient may have been exposed. The only likely culprit we could surmise was the nickel scrapings from the frequent lottery tickets the patient would scratch. Because he was compliant with recommendations, he agreed to limit his lottery ticket scratching; however, the rash persisted and at follow-up visits, it was noted that the rash was spreading caudally and was also causing orange desquamation of his palms.



When the likelihood of contact dermatitis was waning, I plugged the skin findings into the "Differential Builder" on VisualDx. One of the diagnoses offered was Pityriasis Rubra Pilaris (PRP). At that point, the light bulb in my head illuminated! The patient had exactly that – the lesions were not actually erythematous but "orange-red" plaques that began on the face and "expanded to involve most of the body," with "islands of normal skin." Additionally, the patient had "orange hyperkeratosis of his palms." We obtained a punch biopsy from one of his plaques, which confirmed my clinical suspicion (with help from VisualDx, of course!). Management of the patient's PRP has been difficult, as suggested by the app. We continue to treat our patient with topical emollients in conjunction with oral Acetretin, as recommended in the "Therapy" section of VisualDx.

J.B. MD, Resident PGY-2

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