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Approach to Pityriasis Rosea

Developed by Sarah Daraj Mohamed and Dr. Bailey Komishke for PedsCases.com.
June 21, 2025

Introduction:

Sarah: Hello, my name is Sarah Daraj, and I am a fourth-year medical student at McGill University. This podcast was developed in collaboration with Dr. Bailey Komishke, a pediatrician in Calgary, Alberta with a fellowship in pediatric dermatology. In this podcast, we will discuss pityriasis rosea, a common self-limiting papulosquamous rash, most commonly occurring in adolescents.

At the end of this podcast, the learner should be able to do the following:

Learning objectives:

1. Recognize the morphology of pityriasis rosea and how it may differ in various skin tones.
2. Understand how pityriasis rosea is diagnosed and how it can be distinguished from the most common differential diagnoses.
3. Describe the natural history of pityriasis rosea.
4. Describe the treatment options and outcomes.

Case:

Sarah: Let's break down our approach to pityriasis rosea by working through a clinical case.

A 10-year-old otherwise healthy child presents to the outpatient pediatrician clinic with a 2-week history of a widespread rash on the torso. The parents explained that the rash started with a single, larger circular patch on the child's torso, followed by smaller patches that appeared a week later. The rash then spread to the entire trunk, neck, upper arms, and thighs. The child complains of mild itching but otherwise denies systemic symptoms. The child does not take any medications and has no known allergies.

What else would you like to know on the history Dr. Komishke?

Dr. Komishke: Let's get started! There are a few questions running through my mind right now.

Was there any recent viral illness or flu-like symptoms in the days preceding the rash?

Sarah: Yes, the parents report that a few days preceding the rash, the child had a cough and mild sore throat; however, this quickly resolved on its own.

Dr. Komishke: Were there any new drugs or vaccines in the preceding weeks? Any new creams or skin products used?

Sarah: No.

Dr. Komishke: Are there other affected family members? Any recent

travel? **Sarah**: There is no recent travel and no other sick contacts.

Dr. Komishke: Is the child or anyone in the family known for atopy or other dermatological conditions? And lastly, was anything tried for the rash or for symptomatic relief? Did it help?

Sarah: The child is not known for any dermatological conditions. The mother explains that she has psoriasis. There is no family history of atopy. The mother had some mild-potency topical corticosteroids at home, which she applied to the rash for a few days. She explained that it seemed to relieve some of the itch, but the rash did not improve in appearance.

Dr. Komishke: This is all very useful information. Can you give me more information about the physical exam?

Sarah: Yes, of course! On exam, you see a well child in no distress. On cutaneous exam of this patient with white (phototype II) skin, you see multiple small, round, oval shaped salmon-colored to erythematous papules and plaques with fine scale on the trunk. The rash also extends to the upper arms and thighs. On the chest, you notice one larger, approximately 3cm oval-shaped salmon-colored plaque with slightly raised borders and overlying fine peripheral scale. There is a “Christmas tree” like distribution on the back. There are no hair changes and no nails changes. Otherwise, the physical exam is unremarkable.

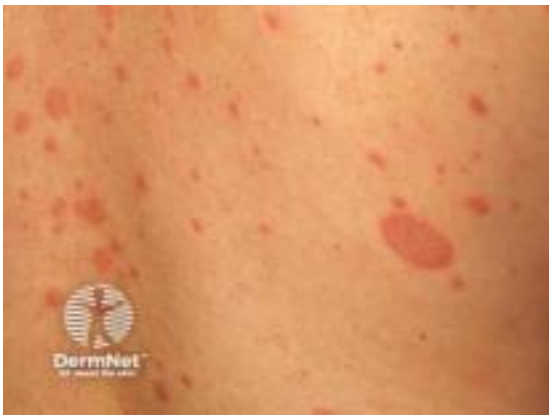

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Image 1: *Pityriasis rosea lesions on lighter skin phototype including the so-called 'Herald patch' and other associated erythematous papules and plaques located on the trunk.*
***Reference**: DermNet*

With this additional information in mind, w*hat first diagnosis comes to mind when you hear about this case?*

Dr. Komishke: Given the typical history of a rash that starts with a single circular patch or plaque and then spreads with new smaller patches or papules, I am thinking of pityriasis rosea. There is also a history of flu-like prodrome which is seen in a proportion of the cases. However, given the family history of psoriasis, guttate psoriasis is an important differential diagnosis.

***Sarah**: Can you tell us more about the etiology or pathophysiology of pityriasis rosea?*

Dr. Komishke: The etiology of pityriasis rosea remains uncertain. A viral disorder is frequently suggested, given the prodromal symptoms in a proportion of the patients, the course of the disease, the seasonal epidemic clusters, and the tendency for the rash to not recur in up to 98% of cases. A viral etiology was initially suggested given that intranuclear and intracytoplasmic virus like particles were appreciated under microscopy. The increase in CD4 lymphocytes and Langerhans cells in the dermis also supports a viral etiology. Some evidence suggests that it may be a reaction to human herpesvirus (HHV)-6 and/or -7; however, the studies are small and conflicting. There is no evidence currently to suggest a bacterial etiology unlike in guttate psoriasis where streptococcal infection is often involved.

Sarah: *How is pityriasis rosea diagnosed? How do clinical features vary in different skin types?*

Dr. Komishke: The diagnosis is clinical and depends on recognizing the characteristic oval lesions with their collarette of scale. These lesions typically have a Christmas tree distribution ; that is to say the lesions follow Langer's lines, which are topological skin lines that reflect the natural orientation of collagen fibers and thus the natural areas of skin relaxation. Up to 70% of the cases start with a single isolated lesion, the so-called herald patch. It is more commonly found on the trunk, upper arm, neck, or thigh. It is important to note that the histologic features of pityriasis rosea are not diagnostic and are similar to those of subacute or chronic dermatitis. Therefore, a biopsy is not recommended. In darker skinned individuals, the lesions appear more violaceous or hyperpigmented. They often leave behind patches of lighter or darker discoloration, which is referred to as post inflammatory hypo- or hyperpigmentation. These patches may linger long after the initial rash has resolved. It has also been suggested that the face and neck are more frequently involved in children with African ancestry. It is also usually more extensive and more papular in morphology.

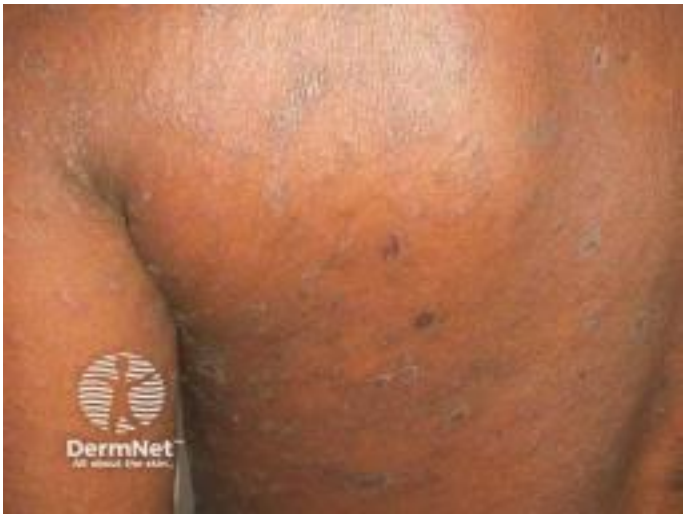

Image 2: *Pityriasis rose lesions on darker skin phototype.*
Reference: DermNet

It is also important to note that there are less common atypical variants of pityriasis rosea which differ in distribution, morphology, size and the number of lesions. These can include inverse pityriasis rosea and purpuric or hemorrhagic pityriasis rosea which may be confused for vasculitis.

Image 3: *Atypical variant inverse pityriasis rosea on lighter skin phototype with herald patch affecting the armpit.*
Reference: DermNet

Image 4: *Atypical variant purpuric pityriasis rosea on lighter skin phototype affecting the trunk.* **Reference**: DermNet

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Sarah: That is all very useful information! *What is your usual differential diagnosis for pityriasis rosea?*

Dr. Komishke: Important diagnoses to consider are tinea corporis, guttate psoriasis, nummular or discoid dermatitis, drug eruptions and secondary syphilis.

Given its circular shape with typically raised borders, the initial herald patch may be mistaken for tinea corporis. The main differentiating factor is that pityriasis rosea will develop multiple smaller lesions following the initial, whereas the lesions in tinea corporis, while new ones may develop, they typically do not follow a specific pattern and the original lesion may increase in size. In case of doubt, it is important to rule out a fungal infection with KOH preparation or with culture of scrapings, given that tinea requires antifungal treatment, whereas pityriasis rosea is self-limiting.

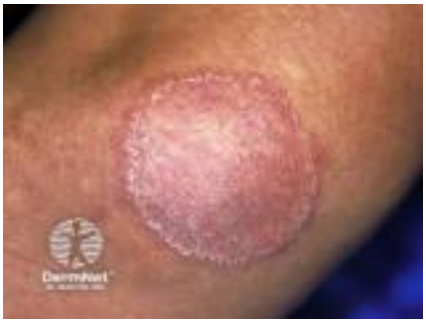

Image 5*: DDx #1 tinea corporis on darker skin phototype*
Reference: DermNet

In patients with a personal or a family history of psoriasis, like in this clinical case, it is important to consider guttate psoriasis. It often develops 1-2 weeks after a streptococcal pharyngitis or perianal streptococcal infection. Similarly, pityriasis rosea may be preceded by a viral-like prodrome, which was more in keeping with our patient given she had both a cough and sore throat. While guttate psoriasis presents with numerous small pink/salmon or hyperpigmented scaly papules and plaques, the appearance is usually more sudden, whereas pityriasis rosea starts more gradually with the appearance of a herald patch followed by the remaining lesions. Guttate psoriasis is also typically more widespread involving the scalp, and the lesions typically involve thicker uniform scaling, whereas they are oval shaped with a thinner collarette of scaling in pityriasis rosea.

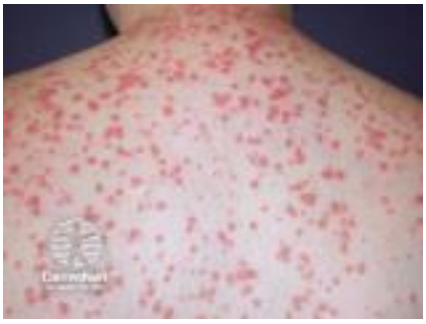

Image 6: *DDx #2 guttate psoriasis on lighter skin phototype.*
Reference: DermNet

Once the secondary rash has appeared, given the generalized papulosquamous appearance, one might think of a drug eruption and should carefully review the medications and specifically ask about any newly introduced medications.

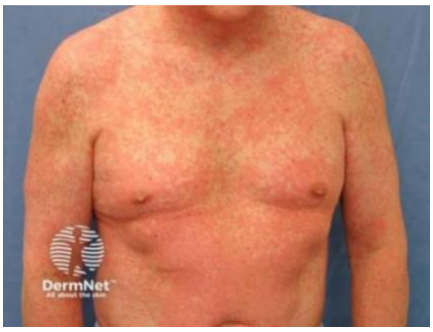

Image 7: *DDx #3 morbilliform drug eruption.*
Reference: DermNet

Lastly, secondary syphilis should be considered, especially in sexually active individuals, when there is involvement of the palms and soles. While this is atypical for pityriasis rosea, it is not impossible.

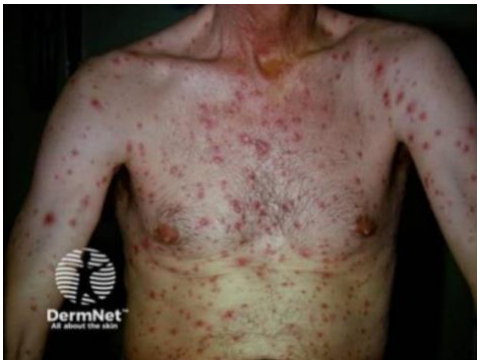

Image 8: *DDx #4 secondary syphilis rash.*
Reference: DermNet

Sarah: Thank you for this great review of the common differential diagnoses!

Sarah: *What is your general approach for the treatment of pityriasis rosea, and what do you usually counsel parents on regarding the outcome for this rash?*

Dr. Komishke: First and foremost, it is important to note that this is a self-limiting disorder that will typically resolve within 6-8 weeks. A proportion of the cases may persist as long as 5 months. This rash is rarely recurrent in less than 5% of cases. In darker-skinned individuals, post-inflammatory hypopigmentation or hyperpigmentation is frequently seen, and this may persist for weeks to months after clearance of the pityriasis rosea rash. It is very important to counsel patients on this and to set clear expectations about lasting

dyspigmentation and provide recommendations for sun protection. Given that this is a self limiting disease, treatment is generally not required. However, it is important to offer symptomatic treatment for patients who experience pruritus or itch. Whilst pityriasis rosea is often asymptomatic, up to 25% of patients may experience severe pruritus. As such, many patients benefit from mild to medium-potency topical steroid creams/ointments and/or non sedating second generation antihistamines, which can help reduce or relieve the itch. All patients also benefit from daily moisturizing.

Although a small study of erythromycin initially suggested possible benefits for pityriasis rosea, subsequent studies have concluded that erythromycin and other macrolide antibiotics are generally ineffective.

On the other hand, several randomized controlled trials have concluded that acyclovir 400 to 800mg five times per day improves symptoms and lesion resolution in more severe cases. The American Academy of Family Physicians (the AAFP) currently has grade B level evidence which supports using acyclovir and discourages using macrolides. However, in practice, it is not commonly used given that there is often a delay of diagnosis and by the time the patient is seen, they are in a post viral state.

Generally speaking, topical and/or antipruritic medications and time is the way to go! The rash will eventually clear.

It is also important to reassure parents that this is not a contagious rash and that students can continue participating in all their daily activities.

Sarah: Thank you so much Dr. Komishke for all this very useful information and for being a part of this podcast. I think we have covered most of the high-yield information on this dermatological condition.

Before we conclude this podcast, let's take a moment to summarize and recap the key points:

1. Pityriasis rosea is a benign, self-limiting papulosquamous rash which typically presents initially with a single circular papule or plaque (although we call it a Herald patch) that then progresses to a widespread rash involving the trunk, chest, arms, and legs. It usually resolves in 6-8 weeks but may last months.
2. In darker-skinned individuals, residual dyspigmentation is common, and patients should be counselled on this.
3. While treatment is not usually required, pruritus should be controlled with topical corticosteroids and/or antihistamines. There may also be some evidence for acyclovir; however, this is not commonly used.

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Acknowledgments: The visual references are solely used for educational purposes. The images are obtained from Dermnet, appropriate referencing is listed above.

Conflicts of interests:

- Author Sarah Daraj declares no conflicts of interest.
- Author Dr. Bailey Komishke has received honoraria from Sanofi, L'Oréal and Arcutis. None of these are directly related to the content of this presentation.

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