Etiology of GP initially thought to be secondary to an external irritant or contact allergy, (specifically deodorant), a possible defense mechanism.

- But many cases show presence of GP without use of an irritant, in non-intertriginous areas, and unilaterally.
- The other line of thought is a disorder of cornification due to improvement with isotretinoin.

General consensus is that there is a disorder of cornification from stratum corneum layer to stratum granulosum layer.

Speculation that this is due to inability to process profilagrin to filagrin extrapolated from electron microscopy studies.

With failure to degrade keratohyalin granules and aggregate keratin filaments.

Main differentials to rule out are allergic contact and irritant contact dermatitis.

Hailey Hailey disease, Darier’s disease, intertrigo, and acanthosis nigricans.

Due to unknown origins and spontaneous remission, there is no exact effective treatment method.

Prior treatments have included topical and systemic steroids, retinoids, calcipotriene, antibiotics, antifungals.

Simple discontinuation of topical applications have proven effective.

Case
- 59 year old male presents to clinic with chief complaint of a progressive rash over the course of a year (Figure 1)
- Has tried changing deodorants and using talcum powder without improvement
- Rash is asymptomatic without any blisters or weeping, only located in axilla
- Shave biopsy of right axilla consistent with findings of GP (Figure 2)
- Instructed to stop topical applications and clean daily with mild soap
- Patient was prescribed Desonide cream qAM and Tretinoin 0.05% cream qHS but this was never applied as 90% of lesion had resolved after one month of discontinuation of deodorant and talcum powder (Figure 3)

Past medical history: diabetes mellitus, hypothyroidism, hand eczema, hypertension

Social: no tobacco or illicit drug use

Meds: levothyroxine, carvedilol, pregabalin, saxagliptin, tamsulosin, pantoprazole, glipizide, warfarin, lisinopril, metformin, furosemide

Allergies: aceterminophen, morphine, hydromorphone, zocor, niaspan

Labs: HgA1c 6.2

Physical Exam

Vitals: BMI: 54.01 kg/m², T: 98.7° F, P: 74 bpm, RR: 18, BP: 139/68

General: awake, alert, oriented, no acute distress

Dermatologic: Fitzpatrick I

Bilateral axilla with erythematous papules coalescing into plaques

Discussion

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But many cases show presence of GP without use of an irritant, in non-intertriginous areas, and unilaterally.

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Conclusion

This case supports the theory of external irritant as etiology of GP; the axillary lesions quickly resolved after discontinuation of deodorant and talcum powder.