

From Recurrent Erythema Nodosum to Psychogenic Purpura: Diagnostic Challenges in Gardner-Diamond Syndrome

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Abstract

Erythema nodosum (EN) has a broad spectrum of underlying causes. In up to 50% of cases, the **etiology remains unclear**. In this case of a recurrent EN the change in symptom presentation and enhancement through extensive diagnostic and therapeutic attention led to the consideration of a psychological component. Despite diagnostic challenges by overlapping conditions, the rare differential diagnosis **psychogenic purpura** (PP or **Gardner-Diamond Syndrome**) could be confirmed, as complete remission occurred following education about the clinical condition and the discontinuation of all interventions.

The pathophysiological concept of **PP** has not yet been clarified. In literature, inconsistent results of cutaneous autoerythrocyte-injections are described.

In contrast, a vulnerable psychogram is often observed, which is why, based on our own case-experiences, we propose an alternative concept of a subconscious factitious (selfharming) genesis as part of a dissociative disorder.

Conclusion

Complexity of diagnosis and treatment was increased through an overlap, as **EN**, with its potential serious underlying causes, required thorough exclusion, while **PP** symptoms could be **enhanced by extensive diagnostic attention** to somatic causes.

The lack of obvious factitious behavior, failure of analgesics, and identification of secondary stressors reinforced the diagnosis of **PP**. Multidisciplinary care, including psychosomatic support, was pivotal.

PP should be considered in patients with atypical chronic panniculitis and unexplained bruising, particularly in young women with **bio-psycho-social stressors** or vulnerable psychological profiles. Effective management requires balancing thorough diagnostic evaluation with psychosomatic support to prevent symptom exacerbation.

Clinical timeline

female *2007,
no comorbidities,
no medication

05/2019-09/2023:
three episodes of livid
erythema with swelling
and pain on left wrist,
duration up to a week

09/2023: First evaluation
+ biopsy (while **fourth**
episode)

11/2023-04/2024:
two more episodes,
left/right wrist (switching
sides), increasing
frequency and intensity
(pain)

07-10/2024:
persistent efflorescence,
left wrist, expansion over
forearm, later additionally
left ankle, with
morphologic change
(now more **hematoma-**
like, Figures 5-8)

Resistant to topical or
systemic corticosteroids,
potassium iodide, and
dapsone

No adequate pain relief
through analgesic
therapy, including opioids
and anticonvulsants

Fig. 1: 05/2019

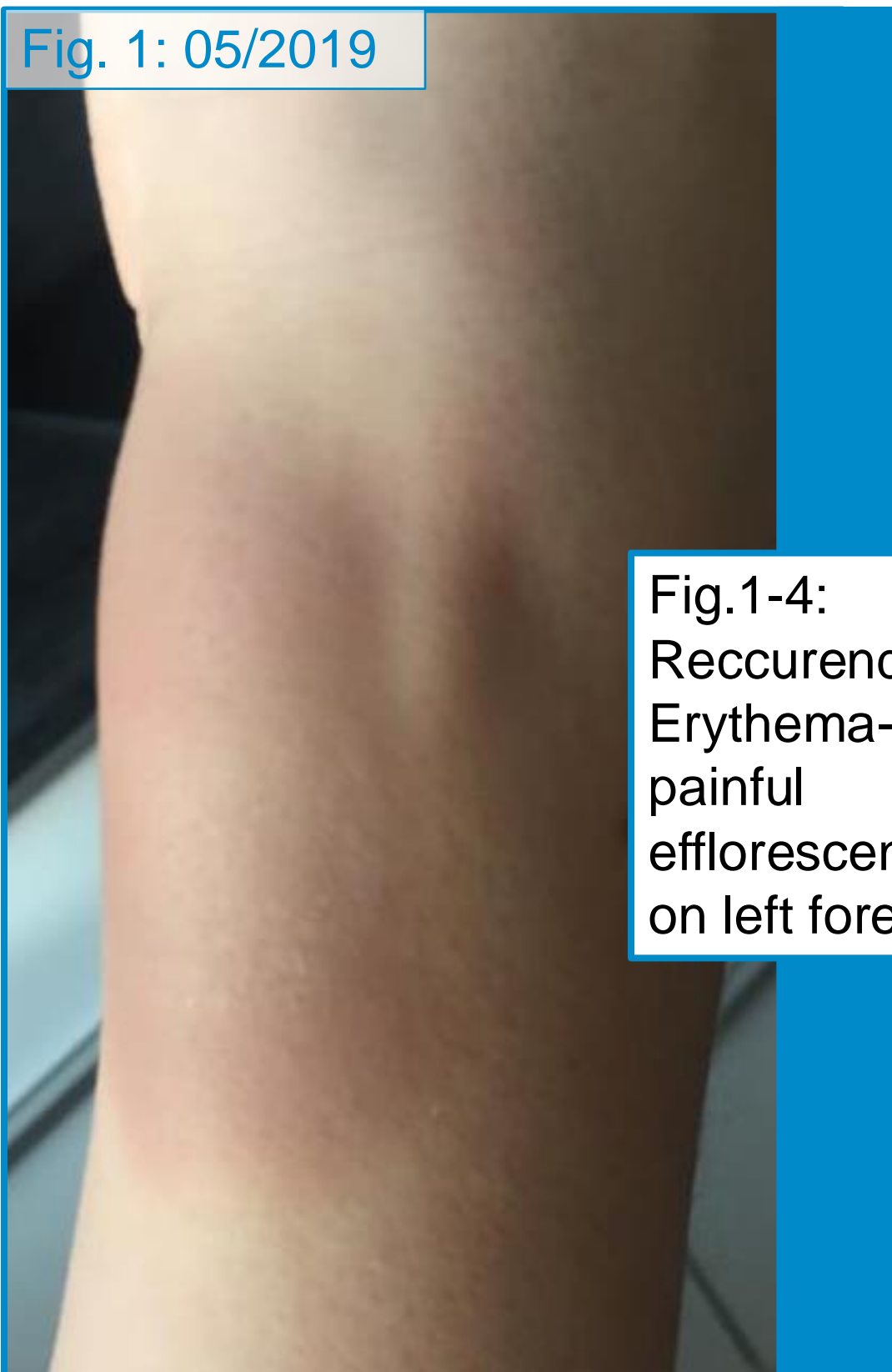


Fig. 2: 09/2022



Fig. 1-4:
Recurrent
Erythema-like
painful
efflorescences
on left forearm

Fig. 3: 03/2024



Erythema nodosum

Fig. 4: 07/2024



Fig. 6: 08/2024



Fig. 5-8: Hämatom-
like painful
erythematous-livid
green-yellow
colored
efflorescences on
left forearm (6-
7)/left ankle (5).
In Fig. 5 ankle-print-
impression.



Fig. 5: 09/2024



Somatic

Basic evaluations:

- No hints of immunologic/inflammatory, infectious, neoplastic, or other causes

1. Biopsy (09/2023 deep spindle):

"Deep dermal, perivascular lymphocytic and neutrophil-rich, granulomatous dermatitis with septal panniculitis - consistent with EN"
→ **idiopathic recurrent EN**

Comprehensive evaluations e.g.:

- Radiologic
- Autoimmune/-inflammatory (ANA, ANCA, RF, CCP, C3/C4, sIL2-R, S100A8/A9, etc.)
- Infectious (extended serology)
- Coagulation
- Genetic (Whole exom sequencing, AID?)
- etc.

→ **fully inconclusive**

2./3. Biopsy (both 09/2023, Charité Berlin/UKL, deep spindle): idem to first biopsie+numerous erythrocyte extravasations

Reference assessment of all biopsies

"In conclusion, a clear distinction between inflammatory genesis with secondary hemorrhage and vice versa (posttraumatic) is not possible. In conjunction with all findings a hemorrhage with post-traumatic fat necrosis is more likely."

Questioning Diagnosis

Psychologic

Signs of Psychosomatic cause

- Inconsistency
- Incongruence
- Variability
- Distractibility

- **Belle indifférence** (Charcot, 1856–1939)
Unconsciously intended morbid gain

Psychosomatic evaluation:

- **Discrepancy** between reported subjective pain and the objectively observed **indifference** and minimal impairment of daily function
- **Secondary gain** related to stress from apprenticeship
- No clear signs of intentional factitia
- Exacerbation due to increased diagnostics and therapy.

- Literature research
- Fitting Phenotype and epidemiology
- Diagnosis of exclusion (prior comprehensive diagnostics)

Psychogenic Purpura

- Termination of treatment, to reduce stress and secondary gain
- Quick and **complete remission**

Pathophysiologic theories:

- In literature (e.g.¹): **Autoerythrocyte sensitization** (molecular mechanism remains unclear, diagnostic testing erratic)
vs.
- Our alternative theory: **Dissociativ factitious disorder** with subconscious selfharming.

¹Ratnoff. Psychogenic purpura (autoerythrocyte sensitization): an unsolved dilemma. Am J Med., 1989)