CASE REPORT

A 52-year-old African-American female presented after 5 days of pruritic, generalized vesicles, papules, and crusts which did not congregate within a single dermatome.

- Reported a similar rash 4 years earlier.
- Denied fever, chills, diaphoresis, or fatigue.
- Worked in food services, but no known sick contacts.
- Past medical history was remarkable for oral herpes simplex virus (HSV) and 2 prior cases of varicella (see table below).
- The first case was pediatrician-diagnosed at age 5.
- Our clinic previously diagnosed the second bout of varicella, at age 48, confirming it clinically and with supportive histopathology.
- No exceptional sinonasal or gastrointestinal infections.
- Routine blood work demonstrated a normal leukocyte count.
- Serology confirmed varicella-zoster virus (VZV) infection.
- VZV IgM (+), VZV IgG (+)
- HSV IgM (-), HSV IgG (+)
- The patient completed a course of acyclovir, and the rash subsided after 2 weeks without sequelae.
- Subsequent immunologic studies including CD4+ T lymphocyte count and immunoglobulin subtype analysis, as well as human immunodeficiency virus screen, were unremarkable.

VARICELLA IN OUR PATIENT

| Immunocompetent Patients with Recurrent Varicella Reported in the Literature |
|-------------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Reference          | Year of Publication | No. of Cases | Demographic Information | Episodic Information | Evidence for Former Infection | Special Notes on Subject(s) |
| Wellner et al      | 1983             | 1 Child        | 1 History             | Author’s sex        |                  |                  |
| Gordon et al       | 1984             | 2 Adults, 1 child | 2 History, serology   |                   |                  |                  |
| Garevich et al     | 1990             | 3 Adults       | 2 Serology            | Hospital employees  |                  |                  |
| Junker et al       | 1991             | 14 Children    | 2,5 History, serology |                   |                  |                  |
| Takayama et al     | 1992             | 2 Elderly      | 2 History, serology   |                   |                  |                  |
| Junker et al       | 1994             | 9 Children     | 2–3 History           |                   |                  |                  |
| Martin et al       | 1994             | 4 Women        | 2 Serology            | Pregnant           |                   |                  |
| Terao et al        | 1996             | 3 Children     | 2 History             |                   |                  |                  |
| Ke et al           | 2005             | 1 Woman        | 2 History, serology   | Nurse              |                  |                  |
| Johansson et al    | 2011             | 1 Woman        | 2 History, serology   | Physician           |                  |                  |

*Patients without conditions associated with impaired immunity (eg, human immunodeficiency virus/AIDS, diabetes mellitus) or conditions requiring treatment with systemic immunosuppressive therapy.
†VZV infection.
‡Data described 2 total subjects, but 1 were previously described by Junker et al (1991).
§Study described 1 additional subject whose history included acute lymphocytic leukemia.

**RECURRENT VARICELLA REVIEW**

As denoted by its hyphenate name, varicella-zoster virus is classified by its ability to inflict 2 infections.

- Primary infection results in varicella, the generalized exantheme predominantly seen in childhood.
- Secondary expression typically results in herpes zoster, the unilateral eruption with lesions confined to a dermatome.
- Recurrent varicella in those with intact immunity is purportedly rare, as indicated by a paucity of published case reports.
- A search of PubMed returned only 41 cases in English language literature (see table below).

**DISCUSSION**

- Surveillance studies have challenged this apparent rarity.
- From 6.9% to 21% of Americans report a history of repeat varicella infection.¹ ²
  - A reported history of varicella is a reliable indicator of immunity, correlating to serologic evidence of immunity in 97% to 100% of cases.³ ⁴
  - Immunity against VZV is imprecisely understood.
  - Varicella is more likely to disseminate in lymphoproliferative patients, while its course is uninfluenced in patients with hypogammaglobulinemia.⁷
- Ethnicity may impact immunoglobulin persistence, as Fitzpatrick type V and VI skin tones may experience reduced viral shedding and less antigenic boosting from secondary varicella cases in a household.³
- At least 3 to 5 major genotypes of VZV have been recognized, and these vary geographically.⁸
- After infection with 1 strain, it is unclear the level of immunoprotection afforded against the others.

**CONCLUSION**

- Most physicians presume varicella can occur only once.
- Our report reminds the thoughtful diagnostician to consider reinfection with VZV, despite positive history or titers.

**REFERENCES**