New-Onset Psoriasis during Peritoneal Dialysis

A 55-year-old patient with end-stage renal disease due to Alport's disease was initiated on peritoneal dialysis (PD) in November 2011. She had no clinical problems and was activated on the transplant waiting list in 2012. In January 2013, she developed a large polycyclic erythematous squamous patch at the medial side of her right knee (Figure 1), and subsequently similar but smaller lesions appeared on the lower and upper extremities. Finally, the exit site of the PD catheter also became involved (Figure 2). The decision was made to take her off icodextrin, because secondary skin lesions have been reported with this solution, and she continued on nocturnal intermittent PD with an empty abdomen in the day. However, 6 weeks later, no improvement in skin lesions was noted. A skin biopsy from the initial lesion revealed psoriasiform dermatitis. The diagnosis of psoriasis vulgaris was established, and topical

Figure 1 — Medial side of knee showing an erythematous squamous patch.

Figure 2 — Exit site showing circular exanthema and squamae.

treatment with bethamethasone ointment combined with a vitamin D₃ analogue was initiated. In a later stage, the patient was treated with ultraviolet light therapy (UV-B). Local skin damage such as, in this case, the exit site of the PD catheter, may predispose to the development of psoriatic lesions. This is referred to as the Koebner phenomenon or isomorphic response and is seen in 25 % of patients with psoriasis.

To our knowledge, this is the first report of psoriasis developing in a patient on PD. A similar case has recently been described in a patient on hemodialysis (1). Interestingly and paradoxically, earlier literature suggests the use of PD to treat psoriasis (2–4), with suggested mechanisms of action through the clearance of middle molecular weight substances (5).

Daniël A. Geerse¹
Joëlle Suijkerbuijk¹
Karen M. van Poppelen²
Elisabeth J. Litjens¹
Tom Cornelis¹

Department of Internal Medicine,
Division of Nephrology¹
Department of Dermatology²
Maastricht University Medical Center,
Maastricht, The Netherlands

*email: tom.cornelis@mumc.nl

REFERENCES

1. Triga K, Dousdampanis P, Aggelakou-Vaitis S, Gellner K. New-onset psoriasis in a maintenance hemodialysis patient. *Hemodial Int* 2012 Jan; 16(1):109–12.

2. Twardowski ZJ, Nolph KD, Rubin J, Anderson PC. Peritoneal dialysis for psoriasis. An uncontrolled study. *Ann Intern Med* 1978 Mar; 88(3):349–51.
3. Whittier FC, Evans DH, Anderson PC, Nolph KD. Peritoneal dialysis for psoriasis: a controlled study. *Ann Intern Med* 1983 Aug; 99(2):165–8.
4. Gotloib L, Fudin R. Use of peritoneal dialysis and mesothelium in non primary renal conditions. *Adv Perit Dial* 2009; 25:2–5.
5. Hanicki Z, Cichocki T, Klein A, Smoleński O, Sułowicz W, Czabanowska J. Dialysis for psoriasis — preliminary remarks concerning mode of action. *Arch Dermatol Res* 1981; 271(4):401–5.

doi: 10.3747/pdi.2013.00249