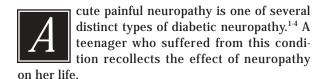
Case report: Patient's perspective on acute diabetic neuropathy

Caroline S. Kargel, MD, CCFP Marshall Godwin, MD, CCFP, FCFP David Alexander, MD, FRCP



Case report

A 16-year-old girl with a 6-year history of type 1 diabetes with poor glucose control presented with acute onset of constant burning pain, paresthesia, and tactile hyperesthesia from her feet to her knees. She rapidly developed intermittent stabbing pains radiating from her knees to her hips. The pain was worse on the right side and present all day.

There were no motor signs initially, but after 4 months, her right side was slightly weaker. She had also lost some weight.⁵ The pain was aggravated by walking, sudden changes in temperature, and hot water. It was somewhat relieved by cold-water baths, forceful massages, and vibration. There was no improvement with greater glycemic control, acetaminophen 2 and 3, an acetylsalicylic acid compound, carbamazepine, tricyclic antidepressants, or quinine sulfate. Her symptoms resolved completely after 8 months and have not returned. She described the effect of the condition on her life.

Patient's perspective

Pain. "It was constant pain all the time.... It was really sore.... On a scale of 1 to 10, the pain was a 10, ••••••

Ms Kargel was a second-year medical student at Queen's University in Kingston, Ont, when this study was done. She now practises family medicine in Hagersville, Ont. **Dr Godwin** is an Associate Professor in the Department of Family Medicine at Queen's University.

Dr Alexander[†] was a Professor in the Departments of Family Medicine and Pediatrics at Queen's University. †Deceased.

This article has been peer reviewed. Cet article a fait l'objet d'une évaluation externe. Can Fam Physician 2001;47:1019-1020.

10 plus.... I cried a lot.... It was the longest 8 months that I can ever remember...."

Effect on schoolwork. "The first couple of months I still stayed in school, but then it just got so bad that I missed so much time from school.... It was the last 2 or 3 months of grade 11 that I had to stay home.... I had to quit school and have a home liaison worker who would bring my work to me. It made me not really able to concentrate because the pain was so bad...."

Distracting activities. "I couldn't have anything heavy on my feet or socks on my feet. I just wore flipflops.... I was like a vegetable in my home. I didn't go anywhere.... I couldn't really walk;... I just laid on the couch, sat in the lawn chair, and laid in bed. Nothing was enjoyable.... My friends who I hung around with came over. They were supportive, but they didn't really know what to do."

Ability to sleep. "The only time I really got relief was if I fell asleep—if I fell asleep. It was like I had insomnia. I would sit up in a lawn chair. I just laid back in it and let my legs dangle a little. I sort of just mainly fell asleep when I was so exhausted and tired that I just couldn't stay up any longer. I used to sit up in front of the TV night after night, trying to get to sleep."

Emotional effect. "I was always depressed and always down on myself. I took a lot out on my mom. Thank God she is still here. I was always feeling down and depressed, thinking my life was going downhill, and it was never going to get better."

"I cried a lot, and I remember always wanting to kill myself if I had to go on any longer."

"When I was going to the doctors, they kept telling me it was all in my head. They put me through testing, and then they would send me home, and my mom would get frustrated and upset. They sent me to a psychologist. He said it was in my head, too, but it wasn't.... It just felt like nobody out there wanted to help... so I thought I was going out of my mind....

CME

Patient's perspective on acute diabetic neuropathy

They thought it was like an attention thing.... I just got the feeling they didn't care. I am sure they thought, 'You're just a kid. Go home. Get over it.' There is nothing really you can do because you don't know what it is."

Discussion

Diagnosis of acute painful diabetic neuropathy (APDN) is based on the constellation of symptoms illustrated by this case. The classic description is sudden onset of severe, constant, burning pain in the feet and legs, overlaid with paresthesia and intermittent shooting or searing pains. The pain usually remits within 12 months.^{6,7}

This case reveals the importance of a knowledgeable physician who recognizes the condition and knows the pharmacologic options, and of a *supportive* physician who takes a judgment-free approach,8 believes that the pain is real, and reassures the patient that the severe symptoms will resolve.

Management of the pain is difficult. This case report will not provide a detailed review of treatment options for APDN. 9-16 A recent review 16 of pharmacologic treatments for neuropathic pain is worth mentioning, however. It provides the number needed to treat (NNT) for one patient to have more than 50% pain relief: tricyclic antidepressants, 1.4 to 2.4; dextromethorphan, 1.9; carbamazepine, 3.3; levodopa, 3.4; gabapentin, 3.7; capsaicin, 5.9; and mexiletine, 10. These NNTs are very good, but the patient described in our case did not get much relief from any of the medications.

Conclusion

The case presents a vivid description of this painful condition from a patient's perspective. It reveals the importance of recognizing the condition when it presents, taking a supportive judgment-free approach to management, trying the various pharmacologic options available, and reassuring patients that the severe pain will eventually resolve.

Correspondence to: Dr Marshall Godwin, Family Medicine Centre, 220 Bagot St, PO Bag 8888, Kingston, ON K7L 5E9; telephone (613) 549-4480; fax (613) 544-9899; e-mail godwinm@post.queensu.ca

References

- 1. Anziska B. The diabetic neuropathies. In: Bergman M, editor. Principles of diabetes management. New York, NY: Medical Examination Publishing Company; 1987. p. 297-307.
- 2. Thomas PK, Brown MJ, Diabetic polyneuropathy, In: Dyck PJ, Thomas PK, Asbury AK, Winegrad AI, Porte P, editors. Diabetic neuropathy. Philadelphia, Pas W.B. Saunders Company; 1987. p. 60.

Editor's key points

- This case report gives a teenager's viewpoint on a disabling, painful complication of diabetes.
- Despite extensive medical treatment, the patient's symptoms did not improve, and she felt a distinct lack of support or sympathy from treating physicians.
- This patient's story is a good reminder to treat the whole patient.

Points de repère du rédacteur

- Cet exposé de cas présente la perspective d'une adolescente sur cette complication douloureuse et incapacitante du diabète.
- En dépit de traitements médicaux exhaustifs, les symptômes de la patiente ne se sont pas améliorés et elle a ressenti un manque définitif de soutien ou de sympathie de la part des médecins traitants.
- Ce récit de la patiente nous rappelle bien qu'il faut traiter la personne dans son entier.
- 3. Watkins PJ. Clinical observations and experiments in diabetic neuropathy. Diabetologia 1992;35:2-11.
- 4. Vinik AI, Holland MT, Le Beau JM, Liuzzi FJ, Stansberry KB, Colen LB. Diabetic neuropathies. Diabetes Care 1992;15(12):1926-75.
- 5. Ellenberg M. Diabetic neuropathic cachexia. Diabetes 1974;23(5):418-23.
- 6. Watkins PJ. Natural history of the diabetic neuropathies. QJ Med 1990:77(284):1209-18.
- 7. Archer AG, Watkins PJ, Thomas PK, Sharma AK, Payan J. The natural history of acute painful neuropathy in diabetes mellitus. J Neurol Neurosurg Psychiatry
- 8. Belgrade M, Lev B. Diabetic neuropathy. Helping patients cope with their pain. Postgrad Med 1991;90(5):263-70.
- 9. The Capsaicin Study Group. Treatment of painful diabetic neuropathy with topical capsaicin, Arch Intern Med 1991:151:2225-9.
- 10. Airey M, Bennett C, Nicolucci A, Williams R. Aldose reductase inhibitors for the prevention and treatment of diabetic peripheral neuropathy. Cochrane Database Syst Rev 2000:(2):CD002182.
- 11. The Diabetes Control and Complications Trial Research Group. The effect of intensive diabetes on the development and progression of neuropathy. Ann Intern Med 1995:122(8):561-8.
- 12. Backonja M, Beydoun A, Edwards KR, Schwartz SL, Fonseca V, Hes M, et al. Gabapentin for the symptomatic treatment of neuropathy in patients with diabetes mellitus: a randomized controlled trial. JAMA 1998:280(21):1831-6.
- 13. McQuay HJ, Tramer M, Nye BA, Carroll D, Wiffen PJ, Moore RA. A systematic review of antidepressants in neuropathic pain. Pain 1996;68(2-3):217-27.
- 14. Pfeifer MA, Schumer MP. Clinical trials of diabetic neuropathy: past, present, and future. Diabetes 1995;44(12):1355-61.
- 15. Pfeifer MA, Ross DR, Scharge JP, Gleber DA, Schumer MP, Crain GM, et al. A highly successful and novel model for treatment of chronic painful diabetic peripheral neuropathy. Diabetes Care 1993;16(8):1103-15.
- 16. Sindrup SH, Jensen TS. Efficacy of pharmacological treatments of neuropathic pain: an update and effect related to mechanism of drug action. Pain 1999;83(3):389-400.