Case report / Artykuł kazuistyczny

Nutritional deficiencies of the opioid epidemic: a story of scurvy masquerading as systemic lupus erythematosus

Niedobory żywieniowe w epidemii opioidów: jak szkorbut udaje tocznia rumieniowatego

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Abstract

Introduction: Scurvy is uncommon in developed countries. Nevertheless, rare cases still do occur. Early recognition of scurvy can be difficult because symptoms may appear nonspecific and can mimic more common conditions. In any patient with spontaneous hematoma and purpura, in the context of a nutritional disorder, scurvy should be considered.

Case description: We describe a 49-year-old female with a history of systemic lupus erythematosus (SLE), irritable bowel syndrome (IBS) and opioid dependence with a three-week history of painless ecchymosis on the left hip and bleeding in her gums. Examination of the oral cavity showed mildly pale gums with oozing of blood on applying gentle pressure. There was also mild

Streszczenie

Wprowadzenie: Szkorbut rzadko występuje w krajach rozwiniętych. Niemniej nadal pojawiają się pojedyncze przypadki. Wczesne rozpoznanie szkorbutu bywa trudne, ponieważ objawy mogą wydawać się niespecyficzne i są podobne do występujących w innych znanych schorzeniach. U każdego chorego z samoistnym krwiakiem i plamicą, w kontekście zaburzeń odżywiania, należy brać pod uwagę szkorbut.

Opis przypadku: W artykule opisano przypadek 49-letniej kobiety z historią tocznia rumieniowatego układowego (SLE), zespołem jelita drażliwego (IBS) i uzależnieniem od opioidów oraz z trzytygodniową historią bezbolesnych wybroczyn na lewym biodrze i krwawienia z dziąseł. Badanie jamy ustnej wykazało lekko blade dziąsła z wy-

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tenderness of the gums. Laboratory investigations were remarkable for vitamin C deficiency in the absence of anaemia. A coagulation panel was unremarkable. The patient was treated with oral vitamin C replacement, resulting in the resolution of her symptoms.

Commentary: Scurvy has been found to mimic symptoms of connective tissue disease. Patients' social and family history needs to be explored in detail prior to the diagnosis of autoimmune disorders as these have different treatment approach and implications. The burden of nutritional deficiencies in dependence and the potential scope of nutrition services in drug detoxification programmes needs to be further investigated. Future directions include a more widespread study to determine the scope of various nutritional deficiencies in patients with opioid dependence.

Keywords: Dependence, Vitamin C, Opioids, Scurvy, Nutritional deficiency.

ciekiem krwi po delikatnym ucisku. Występowała również łagodna tkliwość dziąseł. Badania laboratoryjne wykazały niedobór witaminy C, przy braku anemii. Wyniki testu koagulacyjnego były bez znaczenia. Pacjentka otrzymała doustną substytucję witaminą C, co spowodowało ustąpienie objawów.

Komentarz: Stwierdzono, że szkorbut ma podobne objawy jak choroby tkanki łącznej. Należy szczegółowo zbadać historię społeczną i rodzinną pacjentów przed rozpoznaniem zaburzeń autoimmunologicznych, ponieważ wymagają one odmiennego podejścia terapeutycznego i powodują odmienne skutki. Konieczne jest prowadzenie dalszych badań nad obciążeniem niedoborami żywieniowymi w przypadku uzależnień i nad potencjalnym zakresem usług dotyczących żywienia w programach detoksykacji narkotykowej. W przyszłości powinno się przeprowadzić szeroko zakrojone studia nad określeniem zakresu różnych niedoborów żywieniowych u pacjentów uzależnionych od opioidów.

Słowa kluczowe: uzależnienie, witamina C, opioidy, szkorbut, niedobory żywieniowe.

■ Introduction

Scurvy, although one of the oldest diseases in human history, is uncommon in developed countries. Nevertheless, rare cases still occur, especially in the elderly, persons with extreme dietary restrictions, malabsorption and drug dependence. We describe a case of scurvy in the context of autoimmune disorder, irritable bowel syndrome (IBS) with diarrhea and opioid abuse. Early recognition of scurvy can be difficult because symptoms may appear nonspecific and can mimic more common conditions. In any patient with spontaneous hematoma and purpura, scurvy should be considered in the context of nutritional disorder.

■ Case description

We describe a 49-year-old female with a history of systemic lupus erythematosus on methotrexate therapy, IBS-D and opioid dependence. She was seen by her primary care doctor for complaints of painless ecchymosis on the left hip with gradual increase in size over the past five days as well as ongoing bleeding in her gums for six weeks. The patient denied any trauma or use of anticoagulant medications.

Laboratory investigations were remarkable for a vitamin C level of less than 5 µmol/l, without anaemia. A coagulation panel was unremarkable. The patient was treated with oral vitamin C replacement resulting in the resolution of her symptoms.

Commentary

Scurvy is a nutritional disease manifesting with sequelae of collagen defects caused by a deficiency of vitamin C. Because vitamin C cannot be synthesised endogenously, dietary consumption is crucial [1]. There are no reliable determinants of functional vitamin C status. However, plasma and leukocyte vitamin C levels are the mainstay for assessment and correlate reasonably well with vitamin C intake.

In the United States, most vitamin C deficiencies are seen in severely malnourished individuals, patients who abuse drugs and alcohol, or those

living in poverty with diet devoid of foods rich in vitamin C. Studies on substance use disorders have found extreme nutritional deficiencies in drug abusers like weight loss and changes in dietary patterns [2, 3]. These deficiencies have also been linked to developing barriers to successful withdrawal from opiate use. Factors contributing to unhealthy eating behaviours in this group include lack of nutritional knowledge, food preparation skills and social environments [4-6]. A study from 2011, assessing nutritional and socio-demographic characteristics of patients who abuse opioids during detoxification programme found that these patients consume less than the minimum amount of vegetables, fruits, and grains recommended by the food pyramid and are more eager to consume sweets [7].

Interestingly, this patient was previously diagnosed with SLE. Scurvy has been found to mimic symptoms of connective tissue disease and leukocytoclastic vasculitis [8]. This brings the validity of the patient's previously diagnosed SLE into question and demonstrates the intricate interplay amongst the patient's various comorbidities – opioid dependence and rheumatologic disease – on vitamin C metabolism and absorption.

Symptoms of scurvy generally occur at plasma concentrations below 0.2 mg/dl (or 11 µmol/l). For adults, daily vitamin C supplementation for one month is recommended. Constitutional symptoms may resolve within 24 hours of treatment initiation but other symptoms (such as bleeding gums) take weeks to resolve.

Unfortunately, the burden of nutritional deficiencies in dependence and the potential scope of nutrition services in drug detoxification programmes has not yet been well established. The recent opioid epidemic in the United States has led to an increased awareness of nutritional deficiencies in these patients. Future directions include more widespread study to determine the scope of various nutritional deficiencies found in patients with opioid dependence.

Conflict of interest/Konflikt interesów

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Ethics/Etyka

The work described in this article has been carried out in accordance with the Code of Ethics of the World Medical Association (Declaration of Helsinki) on medical research involving human subjects, Uniform Requirements for manuscripts submitted to biomedical journals and the ethical principles defined in the Farmington Consensus of 1997.

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