Clinical Case Reports International

Case Presentation
Published: 30 Dec, 2022

Scurvy and Tongue Cancer: A Case Report

*Catherine P[1], Paul F[1], Bastien L[1], Elsa D[1] and Xavier G[1,2]**

[1]Department of General Practice, University Jean-Monnet Saint-Étienne, F-42023, Saint-Étienne, France

[2]Université Jean Monnet, INSERM, U1059, SAINBIOSE, Saint-Étienne F-42023, France

Background

Scurvy is a rare disease resulting from the lack of vitamin C in a person's diet and has historically been famous for high mortality rates in sailors of the 15th and 16th centuries who spent long periods of time at sea. Its clinical characteristics vary from fever, asthenia, weight loss or spontaneous hemorrhage. In a blood test, anemia is often found [1,2]. The main sources of vitamin C are citrus fruits and vegetables, which tend to lose their concentrations of vitamin C when cooked. Its treatment is simple, typically supplementation of vitamin C and a change of eating habits [1].

The risk factors for scurvy are numerous: poor diet or food avoidance, psychopathological disorders, low socioeconomic status, digestive disorders, and oral dental disease. Poor diet or food avoidance varied, but all shared no raw vegetable nor fruit intake. The psychopathological disorders are diverse: Alcohol addictions, anorexia, schizophrenia, depression, etc. Risk factors could have some interactions: for example, poor diet and financial difficulties. Cancer is not described as a classical risk factor for scurvy [1,3,4].

In this case report, we have highlighted the diagnostic difficulties facing a scurvy patient with multiple comorbidities including tongue cancer.

Case Presentation

A 68-year-old-woman underwent a consultation with her General Practitioner (GP) in early February 2019 for bruises on the lower limbs, mostly on the left side, that appeared spontaneously a few days prior. The clinical examination found four hematomas around 2 cm each in the right leg and petechiae of both legs. A hematoma was found in the whole part of the left leg that was completely swollen. The GP noticed a dyspnea stage IV with tachycardia measured at 105 beats per minute.

The patient, a retired weaver, lived with her husband and had two children. Her past medical history included alcoholism and smoking; an ischemic stroke in 2011 treated by acetylsalicylic acid; and a lung tuberculosis; and a carcinoma at the base of her tongue in 2012. This carcinoma was treated by surgery and radiotherapy, with a side effect of deglutition disorder. The patient therefore consumed blended food. She was also consumed high-protein supplements since her surgery. Additionally, hypothyroidism that was also a secondary side effect of the irradiation of her tongue was treated by hormonotherapy. The recurrences, such as pulmonary metastasis, were treated by surgery in 2013 and chemotherapy in 2015. The patient also had thrombopenia due to hypersplenism.

Following multiple hemorrhages, the GP sent her to the emergency. A blood test revealed a thrombopenia at 100,000 platelets/m^3 without any other abnormalities. The venous Doppler scan did not reveal any thrombosis. The patient was discharged without treatment.

In mid-February, the patient consulted her GP for increase in hematomas and asthenia. The GP again noticed the dyspnea and tachycardia without weight loss (weight: 68 kg with a body mass index of 24 kg/m^2). The blood test found a normocytic anemia at 79 g/L, leucopenia at 3 G/L in which 2 G/L of neutrophil polynuclear were found, and a stable thrombopenia. The patient was hospitalized in emergency where she received a blood transfusion of 2 globular concentrated pellets. She requested a quick discharge.

The patient had a follow-up to her GP a few days after being discharged. The hematomas appeared to be stable, the patient was less short of breath but was still asthenic. She also described symptoms of anorexia, with abdominal pain located at epigastrium and right hypochondrium part after eating. A blood test found anemia at 94 g/L; liver enzymes were normal. The protein immunoelectrophoresis test revealed an inflammatory syndrome. The TSH and creatinine were

OPEN ACCESS

Correspondence:
Xavier Gocko, Department of General Practice, University Jean-Monnet Saint-Étienne, F-42023, Saint-Étienne, France, Tel: +3363798048; E-mail: xavier.gocko@univ-st-etienne.fr

Received Date: *15 Dec 2022*
Accepted Date: *28 Dec 2022*
Published Date: *30 Dec 2022*

Citation:
Catherine P, Paul F, Bastien L, Elsa D, Xavier G. Scurvy and Tongue Cancer: A Case Report. Clin Case Rep Int. 2022; 6: 1449.

normal. The Coombs test was negative, the dosages of B9 and B12 vitamins were normal. The cancerologist for the patient prescribed a computed tomography of her thoracic, abdominal and pelvis, which were clear.

In early March, the GP hospitalized the patient in the gastroenterology ward showing symptoms of vomiting and weight loss. She once again received a transfusion of two globular concentrated pellets. The acetylsalicylic acid was stopped. The Willebrand factor, the platelet aggregation and occlusion tests were normal. A gastroscopy was performed revealing a hiatal hernia with ulcerations and erythema due to *Helicobacter pylori*. The colonoscopy found a polyp of a few millimeters in size, which was removed. The patient was then referred to a hematologist which was planned in May.

In early May, the patient was hospitalized in the internal medicine ward of the emergency department because her general state was degrading. A weight loss of 10 kg was noticed. The blood test found anemia at 80 g/L which required another transfusion. A lack of vitamin C was found as well as a lack of vitamins D and B9. The albumin was at a normal rate. The ear, nose and throat clinical examination did not identify the origin of the patients' swallowing difficulties. The results from a food survey revealed that the patient was in deficit of fresh vegetables and fruits. She was almost only feeding herself with soup and hyperproteic supplements. The patient refused any enteral nutrition. A vitamin C supplementation was given *via* intravenous then per os. The symptoms of the patient slowly cleared, and she returned home by the end of May. She then changed her food intake to including mixed fresh food.

The patient signed her informed consent on the October 24th, 2020 which allowed this case to be reported.

Discussion

In our case presentation, the clinical and biological signs were quite classical. Yet they did not allow the doctors to make the diagnosis [5,6]. Scurvy is probably considered a disease of the past, forgotten and therefore underestimated [7-11]. The various risk factors should have alerted the doctors. The first risk factor was a food avoidance, which can help to diagnose the disease if a food survey focusing on raw vegetables and fruits is performed. However, such data were only collected after the assessment of scurvy was performed. The patient in our case study had a normal albumin level as she had protein supplement intakes. The second risk factor was alcohol addiction, but this patient no longer consumed alcohol. The low socioeconomic status was the third risk factor. Many interactions existed between these risk factors: for instance, the oral and dental state of a person was directly linked to income, alcohol consumption and a poor diet. The tongue cancer of our patient case study was associated with her low socioeconomic status and alcohol intake [12]. Tongue cancer and scurvy share common risk factors. Cancer treatment is linked to the main risk factor of dietary errors and avoidance. Oral cancers could thus be considered as risk factors for scurvy.

Conclusion

In summary, scurvy should be considered in the differential diagnosis of any hematomas face to a patient with oral cancer.

References

1. Léger D. Scurvy: Reemergence of nutritional deficiencies. Can Fam Physician 2008;54(10):1403-6.
2. Bien JY, Hegarty R, Chan B. Anemia in Scurvy. J Gen Intern Med. 2018;33(11):2008-9.
3. Brandy-García AM, Cabezas-Rodríguez I, Caravia-Durán D, Caminal-Montero L. Hemarthrosis and Scurvy. Reumatol Clínica Engl Ed. 2017;13(6):364-5.
4. Urueña-Palacio S, Ferreyro BL, Fernández-Otero LG, Calo PD. Adult scurvy associated with psychiatric disorders and breast feeding. BMJ Case Rep. 2018;2018:bcr2017223686.
5. Bendick C, Mey S. Haematomas and gingival bleeding. The Lancet. 2012;379(9834):2400.
6. Apostolakos D. Image Diagnosis: Spontaneous Hematoma from Scurvy. Perm J. 2014;18(1):e117-8.
7. Mitchell LV, Wilson MR, Holmes S. A historic disease still prevalent today. BMJ. 2017;356:j1013.
8. Levavasseur M, Becquart C, Pape E, Pigeyre M, Rousseaux J, Staumont-Sallé D, et al. Severe scurvy: An underestimated disease. Eur J Clin Nutr. 2015;69(9):1076-7.
9. Bartley J. Scurvy in New Zealand-a forgotten disease. N Z Med J. 2017;130(1454):86-7.
10. Uddin MA, Robson C, Dotel R. Disease of the past re-emerging in modern Australian society. BMJ Case Rep. 2019;12(4):e228448.
11. Smith A, Di Primio G, Humphrey-Murto S. Scurvy in the developed world. Can Med Assoc J 2011;183(11):E752-755.
12. Chapman J-M, Marley JJ. Scurvy and the ageing population. Br Dent J. 2011;211(12):583-4.