

EASY BRUISABILITY AND FATIGUE IN A YOUNG LADY, DIAGNOSTIC CLUE TO SCURVY : A CASE STUDY

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ABSTRACT

A case of scurvy is reported in a young lady with fatigue, easy bruisability, low mood and cutaneous features suggestive of the clinical diagnosis of Scurvy. This case is presented to remind the young doctors to consider this disease, as it presents insidiously with debilitating repercussions, particularly in the low socioeconomic groups. It can easily be missed, yet is easily treated, therefore high index of suspicion should be kept in the undernourished patients.

Keywords: *Ecchymosis, Malnutrition, Scurvy.*

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INTRODUCTION

Case:

A 28-year-old lady, resident of Multan, presented with multiple ecchymotic patches on the dorsum of feet along with widespread petechial hemorrhages especially involving the lower limbs for 01 month. She reported easy fatigability and shortness of breath after routine activities for about 4 months. She denied history of fever, photosensitivity, oral ulcers, hematuria, melena and gingival bleed. She was a mother of three and her gynecological history was unremarkable. She managed her household independently and assisted as a helper in two other houses. Her diet primarily based on dairy products, cereals and pulses. She often took Ibuprofen for myalgias and preferred to stay quiet and isolated at home.

On general physical examination she was lean built lady, comfortably sitting. Her BP was 120/60mmHg, pulse 85 beats per minute, respiratory rate 14/minute, temperature 97°F. Cutaneous examination

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CAPSULE SUMMARY

A case of scurvy is reported in a young lady who has weariness, easy bruisability, a low mood, and cutaneous characteristics. This case is offered to warn new doctors to examine this disease, as it appears insidiously and has debilitating consequences, particularly in poor socioeconomic groups. It can easily be ignored but is quickly treated; thus, a high index of suspicion should be maintained in the undernourished patients.

showed pale, dry skin with enlarged hyperkeratotic hair follicles, palpable purpuric lesions on the extensors of lower limbs and arms. Ecchymosis and linear erythematous streaks, secondary to minor trauma, were seen on the dorsum of feet and legs (Figure 1a & 1b). Gingiva were edematous, with poor oral hygiene and she had dental caries as well. Her systemic examination was unremarkable. Provisional clinical diagnosis of scurvy was made. Her blood complete picture shows Hb of 10.0gm/dl, MCV 70fl. Serum ferritin of 4ng/mL (13-140ng/ml). Antinuclear antibodies (ANA) was negative. She was prescribed Vitamin C 500mg once daily along with dietary advice of taking citrus fruits. She was also given iron supplements. Follow up visit after 2 week showed healed lesions (Figure 2a & 2b) and improvement in fatigue and her general wellbeing.

DISCUSSION

Sources of vitamin C are vegetables and fruits. Humans cannot synthesize vitamin C, hence dietary intake of citrus fruits, potatoes, tomatoes and green leafy vegetables is essential. Vitamin C is absorbed in the small intestine. This vitamin is required for maturation of triple helix of collagen. Deficiency of vitamin C results in compromised integrity of blood vessels, skin, mucous membranes and bones. It is destroyed at high temperatures during cooking. Deficiency of vitamin C in Pakistani, Indian, Malay and Chinese populations has been seen in comparison to the Western populations and this might increase cardiovascular diseases and cancer among

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Figure 1a: Ecchymosis on dorsum of feet and hemorrhages on minor trauma.

Figure 1b: Perifollicular hemorrhages and corkscrew hair on leg.



Figure 2a & 2b: Follow up after 2-weeks .

the South Asians¹. Low vitamin C levels may also be secondary to food choices, genetic predisposition, anemia, pathogens, and nutrient malabsorption².

Scurvy manifests when dietary deficiency of Vitamin C persists for several months and reduces the total body stores from 1500mg to less than 300mg. Its level in body is regulated by the kidneys, the excess amount is filtered by the glomeruli and reabsorbed via the tubules to a predetermined threshold. The greatest concentrations are present in the pituitary, adrenals, brain, leucocytes, and the eye³.

Systemic features of Scurvy are malaise, lethargy, low mood, anemia and edema. Cutaneous features are gingivitis, swollen gums, splinter hemorrhages, corkscrew hair, perifollicular hemorrhages, ecchymosis and follicular hyperkeratosis, painful hemarthrosis, subperiosteal hemorrhage, particularly femur and proximal tibia, costochondral junction beading – ‘scorbutic rosary’, intramuscular bleeding and difficulty in walking due to pain. Diagnosis is clinical and recovery occurs with Vitamin C supplementation along with dietary advice. Serum levels of vitamin C reflect a recent intake rather than the body reserves⁴. The recommended dietary allowance is 90 mg/day for men and 75 mg/day for women⁵. Elderly and alcoholics, patients on hemodialysis, those with iron overload, and individuals who had gastric surgery are predisposed to scurvy⁶. Therefore, we must remain vigilant and cautious to recognize scurvy before progression to advanced disease⁷.

CONCLUSION

Scurvy is not a disease of the past. We emphasize a thorough history- taking and clinical examination. Early treatment can put the patient back to homeostatic health. In addition, the co- existent nutritional deficiencies should be simultaneously treated.

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REFERENCES

1. Khan RM, Iqbal MP. Deficiency of vitamin C in south Asia. Pak J Med Sci. 2006 Jul- Sep; 22(3): 347-355.
2. Halcrow SE, Harris NJ, Beavan N, Buckley HR. First bioarchaeological evidence of probable scurvy in Southeast Asia: Multifactorial etiologies of vitamin C deficiency in a tropical environment. Int J Paleopathol. 2014 Jun;5:63-71. [https:// doi.org/ 10.1016/j.ijpp.2014.01.004](https://doi.org/10.1016/j.ijpp.2014.01.004).
3. Callus CA, Vella S, Ferry P. Scurvy is back. Nutr Metab Insights. 2018 Nov 21;11:1178638818809097. [https://doi.org/ 10.1177/1178638818809097](https://doi.org/10.1177/1178638818809097).
4. Ngan V, Schukow CP. Scurvy [internet]. DermNet . New Zealand (NZ). New Zealand Dermatological Society. 2005 {Updated 2019 August} .Available from: <https://dermnetnz.org/topics/scurvy>.
5. National Institute of Health Professionals. Vitamine C- Fact sheet for Health Professionals [internet]. ODS NIH. Bethesda (MD). 2018 March 2. {Updated 2021 Mar 26}. Available from: <https://ods.od.nih.gov/factsheets/VitaminC-HealthProfessional/>.
6. Luke Maxfield L, Daley SE, Crane JS. Vitamin C Deficiency [internet]. National Library of Medicine NIH. Bethesda (MD). [Updated 2023 Nov 12]. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK493187/>.
7. Hanania H, Maheshwari K, Dunn C, Rosen T. Early scurvy in the modern era: A case series. JAAD Case Rep. 2023 Jun 29;38:130-135. [https:// doi.org/ 10.1016/j.jdc.2023.06.030](https://doi.org/10.1016/j.jdc.2023.06.030).