



PRESENTATION OF SCURVY IN SAUDI ARABIA; IT IS STILL SEEN!

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Abstract: Four cases of scurvy due to dietary deficiency of ascorbic acid, seen in a relatively affluent community. Various reasons were contributing to this deficiency.

Key words: Vitamin D deficiency, emerging groups, public health, presentation.

Case No.1

18 year old girl from a middle class background, who attends the clinic for follow up of Rheumatic heart disease which she had after multiple attacks of Rheumatic fever during childhood. The valvular heart disease was mild causing no disability and she was on no medications except for her regular intramuscular injections of Benzathine penicillin once every three weeks. She was meticulous about her weight, watching her diet and avoiding supplements including vitamins. Her diet did not include fresh vegetables and fruits as she disliked them. She had BMI of 21kg/m². She has a misconception that vitamin supplements could stimulate appetite and could cause weight gain.

She complained of recurrent multiple bruises noticeably on the legs, appearing without provocation. Full blood counts, erythrocyte sedimentation rate, prothrombin time (P.T.), activated partial thromboplastin time (APTT) were all normal, but she had prolonged bleeding time to 46 seconds. Ascorbic acid level in blood was undetectable (measured by high pressure liquid chromatography HPLC). She had good clinical response to oral supplementations of Vitamin-C tablets and was fully counseled about her eating habits.

Case No. 2

42 year old man with average socioeconomic income, who takes atorvastatin for hypercholesterolaemia plus aspirin, complained of frequent gum bleeding even without provocation. His diet consisted of rice and red meat. He does not consume fresh vegetables and fruits at

all. His oral hygiene was reasonable and no plaques seen. His full blood count, prothrombin time and activated partial thromboplastin time were all normal, but bleeding time was prolonged to 65 seconds.

Ascorbic acid level in blood (measured by HPLC) was 2.5 mg/l (normal range 5.02-15.0 mg/l). He responded well to oral ascorbic acid replacement and was given appropriate counseling.

Case No. 3

78 year old man, bedridden due to multiple cerebrovascular accidents on artificial feeding via gastrostomy for four years. He was on aspirin, plus antihypertensive medications and atorvastatin. He was looked after at home by his family members. His diet consisted of insure milk with no vitamin supplements added. He was brought to the emergency room with gross haematuria. There was no history of recent trauma to the urinary tract, and his indwelling silastic catheter was correctly in situ. Urgent ultrasound of the bladder and urinary tract was normal. Full blood count showed haemoglobin of 8.3g/dl, rest was normal, prothrombin time, activated partial thromboplastin time were also normal. Bleeding time was prolonged to 55 seconds. Ascorbic acid level in blood (measured by HPLC) was undetectable. He responded well to supplements of Ascorbic acid via gastrostomy tube. He also needed Iron supplement to treat the iron deficiency anemia which resulted from prolonged haematuria. He was kept on long term supplements of ascorbic acid.

Case No. 4

62 year old man with chronic obstructive airway disease, ischemic heart disease plus diabetes and

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hypertension. He presented to the emergency room with severe pneumonia and acute multi-organ failure needing ventilator support and intensive care admission. This was prolonged to a period of ten weeks. During this period he was fed artificially via nasogastric tube. He was given insulin milk with no added vitamin supplements. After extubation and weaning him off the ventilator, he was noticed to have intense oozing from the nose and buccal cavity. There was no anatomical abnormality noted on examination of the nose and mouth. His platelet count was normal, prothrombin time and activated partial thromboplastin time were both prolonged, as he was on heparin infusion. However his ascorbic acid level in blood was 1.2mg/l. Ascorbic acid was added to his artificial feed and that helped to stop blood oozing from nose and buccal cavity.

Discussion

While it is well known as a disease of the past, scurvy is emerging again (1) worldwide in different parts of the developed and underdeveloped world (2-7). The lower income group of the population seem to suffer most among other classes of the population (3,5), but other groups at risk include patients with chronic illness such as chronic renal failure on peritoneal dialysis (8) and hospitalized elderly patients (2).

The four patients described in this report all had bleeding disorders due to ascorbic acid deficiency and none of the other manifestations of scurvy such as musculoskeletal manifestation (9, 10) or poor healing of wounds as in chronic venous leg ulcers (11).

The first two of the patients described did not come from lower socioeconomic class but they practiced bad dietary habits of avoiding nutritional sources of vitamin-C in their diet as well as not taking vitamin supplements.

The third patient was an elderly bedridden who was not adequately fed supplements of vitamins with his artificial diet. The fourth patient was managed for a prolonged period in intensive care unit set up and he also developed ascorbic acid deficiency due to inadequate dietary supplements, after prolonged artificial feeding.

In this era, where young generations consume large amounts of fast food, frequently with no supplements of fresh fruits and vegetables, it is expected to observe a rise in incidence of scurvy simply due to bad dietary habits. Inadequate attention to nutritional requirements of patients on long term artificial feeding is another important factor contributing to the re-emergence of scurvy. Physicians, dieticians and public health officers should be on the alert for taking appropriate measures to diagnose, prevent and treat the re-emerging disease.

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