Bitot spot: early marker for avoidable blindness

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An eight-year-old boy presented to our ophthalmology clinic with a four-month history of dry, itchy eyes and a reluctance to play outdoors during late evening, possibly indicating night blindness. The patient's unaided visual acuity was 6/6 in both eyes. He had triangular, bilaterally symmetric, keratinized patches in the interpalpebral regions over his bulbar conjunctiva, adjacent to the temporal limbus. These features were suggestive of Bitot spots, classified as xerophthalmia stage X1B according to the World Health Organization classification (Figure 1).¹ His cornea and dilated fundus examination were normal, as were his height and weight for his age. He had dry, brittle nails and skin xerosis involving both lower limbs. We diagnosed vitamin A deficiency and prescribed oral vitamin A 200 000 international units to be taken on two consecutive days, and a third dose at 14 days.¹ We also recommended ocular lubrication. The patient's Bitot spots and night blindness resolved in one month.

Vitamin A deficiency is a major cause of avoidable blindness worldwide in preschool children. Nearly half of all cases are concentrated in Southeast Asia and Africa.² Moderate to severe vitamin A deficiency has been found in 20%–60% of children in refugee camps in Africa,³ and is associated with malnutrition, diarrhea and respiratory tract infections. North American physicians treating children from refugee camps in Southeast Asia and Africa may wish to consider the possibility of vitamin A deficiency in children with visual disturbance or dry eyes.

References

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Figure 1: Left eye of an eight-year-old boy, with a large, superficial, triangular, foamy, keratinized patch in the interpalpebral region over the bulbar conjunctiva, adjacent to the temporal limbus (black arrow), suggestive of Bitot spot.

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