

Alopecia Syphilitica: a case report involving hairloss on scalp and eyebrow

Muhammad Naeem Barg (1)
Waad Ibrahim Kadori (2)

(1) Consultant Family Physician; Primary Health Care Corporation Qatar, Doha, Qatar
 (2) Consultant Dermatologist, Primary Health Care Corporation Qatar, Doha, Qatar

Corresponding author:

Dr. Muhammad Naeem Barg

Primary Health Care Corporation head office, Al Mina Street (B ring Road), Area Authority, Opposite Double tree Hilton Hotel, Doha, Qatar

Phone No.: +97433718019

Fax No.: +97444069917

Email: naeembarg@gmail.com; mbarg@phcc.gov.qa

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Abstract

Alopecia syphilitica (AS) is an uncommon presentation and has been reported in up to 7% of cases with syphilis. This case report discusses the presentation and management of a 17-year-old male patient from South Asia who presented with patchy hair loss on the scalp and eyebrow.

Key words: alopecia syphilitica, primary syphilis, secondary syphilis, latent syphilis, tertiary syphilis

Introduction

Alopecia syphilitica (AS) is an uncommon presentation of secondary syphilis and is observed in up to 7% of cases according to the literature(1–3). The first sign of primary syphilis is a chancre, a painless sore on the oral or anogenital region (4). After a mean duration of 6 weeks (range: 2–16 weeks) of the primary chancre, secondary syphilis develops with a rash (5). The rash appears as a reddish-brown papula or plaque which becomes generalized, involving trunk and even the palms and soles of the patient(6). Other symptoms of secondary syphilis include a flu-like illness, muscle aches, sore throat, fatigue, fever, swollen lymph nodes, and hair loss (7). If alopecia is the only sign of secondary syphilis, it is referred to as essential syphilitic alopecia (ESA). There are three types of ESA: the classic patchy “moth-eaten” alopecia, a generalized thinning of the hair, and a combination of both(2). Among these, the “patchy moth-eaten” type of alopecia occurs most frequently and is characteristic of syphilis(8–10). The scalp hair is the most common area affected, though it can also affect the eyebrows, beard, and legs(11).

Syphilis is known to have a great mimicking ability due to its various forms of manifestation that copy those of other medical conditions(12). Other forms of alopecia, which can resemble AS, include alopecia areata, trichotillomania, planopilaris, traction alopecia, and tinea capitis (13). Untreated patients will enter into a latent period (latent syphilis), during which time, they are asymptomatic, which can last for up to 25 years before the condition progresses to tertiary syphilis(14). Tertiary syphilis may lead to death due to its complications, such as cardiovascular syphilis, neurosyphilis, and gummatous syphilis.(5).

In a recent literature review, there appears to be a paucity of reports of syphilitic alopecia involving hair loss on the eyebrow. The other important aspect in our case was the need to obtain a correct sexual history in a place where the law, culture, and religion strictly prohibit nonmarital sex.

Case Report

Patient information

A 17-year-old male south Asian Muslim patient presented with his father to a Primary Health Care Centre in Qatar with reports of an itchy scalp, severe scalp dandruff, and gradual hair loss during the preceding three months. He also showed a patch of hair loss on his left eyebrow. He had tried various types of shampoos but had noticed no improvement in his symptoms. The patient denied any symptoms of penile or mouth ulcers, rash anywhere on the body, or swelling of glands. He was fit and healthy, with no significant past medical history of note. At the time of presentation, he was attending high school for education.

Clinical findings

On examination, he had patchy hair loss of the scalp (Figure 1A - next page). He also had a small patch of hair loss at the medial aspect of the left eyebrow (Figure 1B). His scalp had widespread generalized scaling. There were no vesicles or pustules on the scalp. He categorically denied any history of sexual contact when asked alone confidentially.

Diagnostic assessments

The findings of routine blood tests, including complete blood count, ferritin, urea, electrolytes, and thyroid function tests, were all normal. The culture of the scalp skin scrapings was negative for fungal elements. Given the patchy hair loss, syphilis screening, i.e., screening for *Treponema pallidum* antibodies and rapid plasma regain, was requested. Both of the tests turned out to be positive, confirming the diagnosis of syphilis. Serological tests (both treponemal and nontreponemal) are routinely used to diagnose syphilis, while, more rarely, direct detection methods are employed, depending upon resources and availability(15). Despite the diagnosis, given the patient's reluctance to discuss past sexual contact, no partner notification was possible.

Therapeutic intervention

The patient was urgently referred to the Venereal Disease Clinic, part of the Infectious Disease Department at Hamad General Hospital in Qatar, where he was given his first dose of benzathine penicillin 2.4 gm Intramuscular (IM) stat. In accordance with guidelines from the United States (16), United Kingdom (17), and Canada (18), the treatment of primary, secondary, and early latent syphilis involves a single dose of 2.4 gm of benzathine penicillin G. For late latent syphilis, the same dose of benzathine penicillin is given once weekly intramuscularly for 3 weeks.

Follow-up and outcomes

Within 24 hours of the benzathine penicillin being given, the patient developed a mild Jarisch–Hexheimer reaction with symptoms of fever, malaise, headache, and lymphadenopathy. These symptoms were managed conservatively. Unfortunately, the patient had to leave Qatar 4 weeks after the treatment for further education back to his home country. Luckily, the patient's father has remained a regular patient at the same health center and was kind enough to provide regular updates and more recent photos (of the scalp and eyebrow) taken 4 months after the treatment. A review of the photos indicated full recovery of the scalp hair (Figure 2A) and left eyebrow (Figure 2B).

Figure 1: A and B Patchy scalp hair and left eyebrow hair loss before treatment



Figure 2: A and B Growth of scalp and left eyebrow hair 4 months after treatment with benzathine penicillin 2.4 gm IM

A



B



Discussion

This case of essential AS is an interesting and rare diagnosis in itself, but of particular interest is that there are no other case reports of this nature cited in the literature for Qatar. Aside from the diagnostic challenge, the ethical dimensions of this case, including maintaining confidentiality, gathering consent, and collecting a sexual history, added to the learning values. It is important to ensure the confidentiality of the patient and aim to obtain the most accurate history and establish contact tracing. In view of the typical “moth-eaten” alopecia pattern, it would be reasonable to arrange for a syphilis screening. The possibility of young patients presenting with secondary syphilis should not be ignored, as early treatment can prevent devastating complications of tertiary syphilis (19). Especially in a culture where positive syphilis results can cause stigma, members of the medical staff need to be sensitive about the diagnosis and its implications and to appropriately discuss with the patient or their parents (if the patient is considered minor as per law of the country) about their condition.

Ethical Considerations

The procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2000. Since, this is a case report ethics committee approval was not needed.

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Consent

Written informed consent for case report preparation and publication was obtained.

Conflicts of Interest and Source of Funding

The authors declare that there is no conflict of interest.

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