Orogenital Aphthae with Blindness- A Look Beyond The 'Silk Road'

Afrin Dewan[1], Md. Mokhleshur Rahman Sarker[2], Sajib Kumar Sarkar[3], Md. Al Fatah Al Adiluzzaman[4]

1. Indoor Medical Officer
   Department of Medicine
   Rangpur Medical College, Rangpur
2. Professor and Head
   Department of Medicine
   Rangpur Medical College
3. Registrar
   Department of Medicine
   Rangpur Medical College
4. Associate Professor
   Department of Medicine
   Rangpur Medical College

Correspondence to:
Afrin Dewan
Indoor Medical Officer
Department of Medicine
Rangpur Medical College
Email: afrindewan0792@gmail.com

Submission Date : 02 Feb 2025
Accepted Date : 02 March 2025
Published Date : 30 March 2025
DOI: https://doi.org/10.3329/jrpmc.v10i1.81571

Abstract:
Behcet's disease is a vasculitis affecting small arteries and venules, more common in 'Silk Route' countries, the Mediterranean, and Japan due to a strong genetic association with HLA-B51. Oral ulcers are common, with genital ulcers occurring in 60%-80% of cases. Skin lesions include erythema nodosum or acneiform, while migratory thrombophlebitis and vasculitis also occur. Ocular involvement is common, and neurological involvement occurs in 5%, mainly involving the brainstem with rare renal involvement. A 32-year-old lady presented with recurrent painful, herpetiform oral ulceration and painful genital ulceration, central retinal artery occlusion (CRAO) of left eye and intermediate uveitis of right eye with positive HLA-B51.

Keyword: Orogenital aphthae, Blindness, Behcet's disease

Citation: Dewan A, Sarker MMR, Sarkar SK, Adiluzzaman MAFA.Orogenital Aphthae with Blindness- A Look Beyond The 'Silk Road'.J Rang Med Col.2025 Mar;10(1):99-102. doi: https://doi.org/10.3329/jrpmc.v10i1.81571

Introduction:

Turkish dermatologist Hulusi Behcet reported three patients with recurrent, painful oral, genital ulcerations and uveitis in 1937.[1] Today this mysterious disease, causing vasculitis of vessels of all types and sizes, is known as Behcet's disease (BD) or, Behcet's syndrome or, Adamantiades-Behcet's disease. Pertaining to its prevalence along countries of old Silk Road (from East Asia to Mediterranean), it is also named as The Silk Roaddisease with highest prevalence in Turkey followed by Japan.[2] Age incidence is highest between 20 to 40 years with more males affected in Turkey as well as most Asian countries and more females in regions of America.[3] BD is a chronic disease causing multisystemic disorder with wide range of presentations and thus the diagnosis is arduous, largely related to scarcity of BD in Bangladesh or Indian Sub-continent.

Case report:

Our patient is a 32-year-old, non-diabetic, normotensive lady hailing from northern part of Bangladesh, suffering from recurrent painful, herpetiform oral ulceration and painful genital ulceration for about 4 years with frequency of 5-6 times per year for which she did not consult any registered physician. About 7 months prior to admission into Rangpur Medical College Hospital, she noticed painless loss of vision of left eye,

consulted an Ophthalmologist and diagnosed as central retinal artery occlusion (CRAO) of left eye (Figure-1). She was on topical steroid but about six and half months later (15 days before hospital admission), she noticed painless gradual visual loss of right eye. She again consulted Ophthalmologist and this time her ocular examination revealed- Right eye: visual acuity- 6/6P, vitreous cells +++, vitreous haze ++ (consistent with intermediate uveitis); Left eye: visual acuity- NPL, old CRAO with sclerosed vessel, optic atrophy and referral to an internist was made for further evaluation. We reviewed the patient and got the history of orogenital aphthae, ocular involvement, occasional flatulence as well as mild abdominal pain suggestive of gastrointestinal involvement. Her physical examination showed a painful ulcer on tongue (Figure-2) and relative afferent pupillary defect (RAPD) of left eye but signs of neurological deficit were not evident. Our differentials included- Behcet's disease, Systemic lupus erythematosus (SLE), Inflammatory Bowel Disease, Syphilis. Pathergy test was not done as the patient was already receiving steroid but HLA-B51 came positive among the investigations (Table-I). International Criteria for Behcet's Disease score was 6 (Table-II) along with HLA-B51 positivity that led us to the diagnosis of Behcet's disease. She was treated with oral Prednisolone, Colchicine, Azathioprine and at 1 month follow up, her ocular condition was static, and ulcer healed.

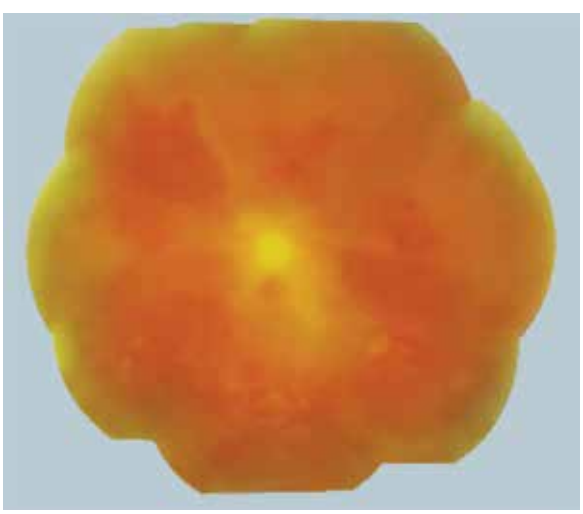

Figure-1: Extensive retinal hemorrhage, pale optic disc

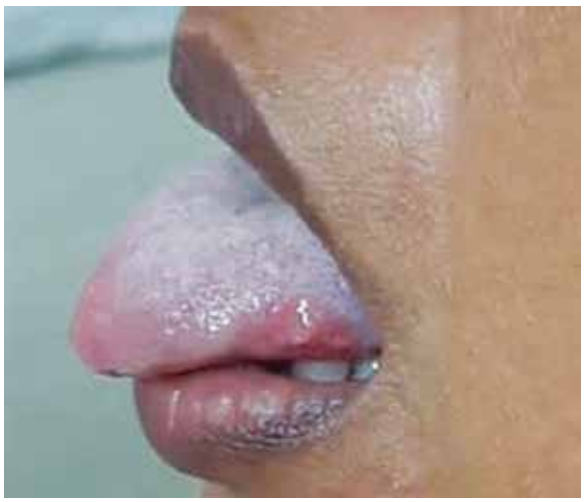

Figure-2: An ulcer on left lateral border of tongue

Table-I: Investigations of the patient

Investigation Reports	
Complete blood count	Hb%- 10.5 gm/dL ESR- 25mm in 1st hour Total WBC-12,200/cmm N-74%,L-20%, M-4%,E- 2% Platelet- 4,20,000/cmm
Anti-nuclear antibody	120 UA/ml (positive)
HLA-B51	Positive
Anti-ds DNA	Negative
TPHA	Negative
Tuberculin test	Negative
Urine R/M/E	Protein & casts-absent
Endoscopy of upper GIT	Normal study
CT scan of brain	Normal study

Table-II: International Criteria for Behcet's Disease –point score system: scoring >4 indicates Behcet's diagnosis[4]

Sign/symptom	Points
Ocular lesions	2
Genital aphthosis	2
Oral aphthosis	2
Skin lesions	1
Neurological manifestations	1
Vascular manifestations	1
Positive pathergy test*	1*

*Pathergy test is optional, and the primary scoring system does not include pathergy testing. However, where pathergy testing is conducted one extra point may be assigned for a positive result.

Discussion:

Behcet's disease remains an obscure and complicated disease whether in terms of its variable presentation or, pathogenesis. However, some contributors like genetics, immune system, inflammatory mediators, infections with Streptococcus, Mycoplasma, H. pylori, Herpes simplex virus etc. are thought to cause this chronic, systemic vasculitis of relapse and remission.[2] Individuals with presence of HLA-B51 in MHC class I region, has 78% higher risk of getting the disease.[5] In terms of immune mechanism, many factors such as T helper cell type-I immune response, cytokines (IL-1, IL-8, IL-12, IL-17, IL-37, TNF), low prostacyclin, higher level of nitric oxide have been insinuated.[2] The presentations are diverse with oral aphthae being the commonest and introductory presentation in up to 80% cases followed by disclosure of further exhibits such as genital aphthae, ocular lesions, cutaneous lesions (acneiform, folliculitis, erythema nodosum, thrombophlebitis), joint involvement (40-60%), neurological involvement (amnesia, dementia, personality change, meningitis, cerebral vasculitis, brainstem, cerebellar, and spinal cord lesion), gastrointestinal lesion (in up to 50%).[3] Ophthalmic involvement in BD may lead to serious visual morbidity in young patients. Early diagnosis may prevent bilateral blindness and the accompanying loss of quality of life. A retrospective, multicentre case–control study on three-hundred and three eyes of 175 patients with ocular BD revealed, retinal vascular occlusions were found in 80 eyes of 54 (30.9%) patients, including branch retinal vein occlusion (51.3%), peripheral vessels occlusions (32.5%), central retinal vein occlusion (13.8%) and arterial occlusions (7.5%).[6] Muid J et al reported a case on a 40-year-old lady of Behcet's disease presented as bilateral occlusive retinal vasculitis in a young woman.[7] A 29-year-old female presented with recurrent oral and genital ulcers with development of eye lesions usually start in one eye and then pass to the other eye. They were like iridocyclitis extending very quickly to another eye.[8] Although rare, cardiovascular manifestations may present as arteriovenous occlusions, large artery aneurysms-rupture of which is the leading cause of mortality[2] followed by neuro-Behcet's and gastric ulcer perforation.[9]

Conclusion:

Due to rarity of the disease in this region and inadequacy of definitive diagnostic investigation, the puzzle of BD may be unnoticed. Nevertheless, being a non-curable disease of chronic, relapsing remitting course, an effective and early treatment may decline morbidity. Thus, careful clinical consideration should be given to avert under diagnosis.

Reference:

1. Behcet's disease. In: Firestein GS, Gabriel SE, eds. Kelley and Firestein's Textbook of Rheumatology. 10th ed. Philadelphia: Elsevier; 2017:1589-1595.
2. Shwetha BA, Vittal NI, Tasneem AF, Patel T, Lari AAJ. Case Report: Behcet's Disease. International Medical Journal. 2014 Jan;1(1): 33-34.
3. Garcнa RAP, Rodriguez JIR, Molina OM, Manso BJG, Villanueva MT. Oral Manifestations of Behcet's Syndrome: Case Report. BJSTR. 2021;39(1):31079-31084. doi:10.26717/BJSTR.2021.39.006259
4. International Team for the Revision of the International Criteria for Behcet's Disease (ITR-ICBD). The International Criteria for Behcet's Disease (ICBD): a collaborative study of 27 countries on the sensitivity and specificity of the new criteria. J Eur Acad Dermatol Venereol. 2014 Mar;28(3):338-47. doi: 10.1111/jdv.12107.
5. Basnet M, Gautam K, Pathak BD, Phudong A, Gaire S, Bohara N, et al. Behcet's disease in an adult male from Nepal: A case report. Clin Case Rep. 2021 Oct 13;9(10):e 04912. doi: 10.1002/ccr3.4912.
6. Ostrovsky M, Ramon D, Iriqat S, Shteiwi A, SharonY, Kramer M, et al. Retinal vascular occlusions in ocular Behcet disease–a comparative analysis. Acta Ophthalmologica. 2023;101:619–626. doi:https://doi.org/10.1111/aos.15645
7. Muid J, Stephenson KAJ, Hegazy E, Murphy CC. Behcet's disease presenting as bilateral occlusive retinal vasculitis in a young woman. BMJ Case Rep. 2021 Mar 4;14(3):e241794. doi: 10.1136/bcr-2021-241794.
8. Ferizi M, Gerqari A, Ferizi M. Behcet's Disease - Case Presentation and Review Literature. Open Access Maced J Med Sci. 2018 Oct 3;

6(10):1871-1874. doi: 10.3889/ oamjms. 2018.393.
9. Pande I, Uppal SS, Kailash S, Kumar A, Malaviya AN. Behcet's disease in India: a clinical, immunological, immunogenetic and outcome study. Br J Rheumatol. 1995 Sep; 34(9):825-30. doi: 10.1093/ rheumatology/ 34.9.825.