

Clinical Evaluation and Treatment of Behcet Disease in a Tertiary Care Hospital in Kolkata

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Abstract : Behcet's disease (BD) is a rare immune-mediated systemic vascular disease characterized by the recurrent oral aphthae and other several systemic manifestations. Behcet disease requires the presence of recurrent oral aphthae (three times in 1 year) with at least two of the following: recurrent genital aphthae (aphthous ulceration or scarring), eye lesions (retinal vasculitis, cells in vitreous, or uveitis), skin lesions (papulo-pustular lesions, pseudo-vasculitis, acneiform nodules, or erythema nodosum), or a positive Pathergy test. A 21 years male (60kg) student from Kolkata admitted to our hospital with history of sudden development of extensive maculopapular erythematous rash all over the body involving the lesions over lip and oral cavity and eye. On examination he was febrile (100⁰f) with erythematous lesions/ulcers about 0.5-1.5cm all over the body more concentrated over the face, extensors of upper limb and lower limb with subconjunctival hemorrhage. Case was investigated and evaluated in detail and initially started with supportive treatment. The patient was medicated with 40 mg/day prednisone for 15 days and then 30 mg/day for 15 days, followed by 20 mg/day for 15 days then 10mg for 1 month and he was explained and counseled to be in close follow up. After two and half month of follow up he recovered completely from all the lesions. This case emphasizes the need to increase awareness among clinicians in eastern India on Behcets Disease so as to timely diagnose and offer prompt treatment (steroids) to prevent ophthalmologic and other systemic manifestation.

Keywords: Behcet disease, aphthous ulceration, erythematous rash, subconjunctival hemorrhage, Pathergy test

I. Introduction

Behcet's disease (BD) is a rare immune-mediated systemic vascular disease (named after the Turkish Dermatologist, Hulusi Behcet in 1937) which is characterized by the recurrent oral aphthae and other several systemic manifestations¹. It is believed to exist in many parts of the world with high incidences in the Middle East, Far East, and Mediterranean region and in an area of the ancient trading route known as "Old Silk Road" between latitudes 30° and 45° north in Asia and Europe. It is believed to exist in many parts of the world with high incidences in the Middle East, Far East, and Mediterranean region and in an area of the ancient trading route known as "Old Silk Road" between latitudes 30° and 45° north in Asia and Europe^{1,2,3}. There are no pathognomonic investigative tests for the disease, and thus, the diagnosis relies on the clinical criteria according to the International Study Group for the Behcet's Disease (ISGBD)⁴. ISGBD requires the presence of⁴ :-

- 1) recurrent oral aphthae (three times in 1 year) with
- 2) at least two of the following:
 - a) recurrent genital aphthae (aphthous ulceration or scarring),
 - b) eye lesions (retinal vasculitis, cells in vitreous, or uveitis),
 - c) skin lesions (papulo-pustular lesions, pseudo-vasculitis, acneiform nodules, or erythema nodosum), or a positive Pathergy test⁴.

Corticosteroids, immunosuppressant drugs, tumor necrosis factor-inhibitors, and other symptomatic treatments are commonly used in the management of BD⁵. It seems to preferentially occur in individuals in their third decade of life, although there is increasing rate of the disease in children and there is no proof of hereditary factor. Men are more frequently affected than women⁶. The evolutionary history of the disease is marked initially by oral, followed by genital ulcers, ocular lesions skin disorders and arthritis⁷. The involvement of major importance in this syndrome, also being the first manifestation perceived in between 25 and 75% of cases, are the oral lesions, which are manifested in the same location during the entire course of the disease in almost all patients. Such lesions are similar to the typical aphthous ulcers that are characteristically presented in a great number of lesions (six or more), occurring mainly on the soft palate, lips, tongue, gingiva, oral mucosa and oropharynx, while the larynx and the nasal mucosa are rarely affected. When these lesions are individually present, they generally vary in size, measuring from 2 to 10 mm in diameter, and present with a yellowish necrotic base, raised edges and a diffuse erythematous area. These ulcers persist for several days or even weeks,

and heal without leaving scars. Some studies have shown that the oral severity of the lesions is not directly related to a more severe systemic involvement^{8,9}. The genital ulcers appear to be the second frequent manifestation in the disease's cases and are found in a large majority of patients. The perianal lesions are found in both gender and their evolution is similar to what occurs in the mouth. Lesions on the penis and scrotum are rarely observed. In women, lesions occur mostly on the lips, vulva and vaginal wall, and may have painless manifestations that go unobserved, and in these cases, the diagnosis is made through pelvic examination^{8,9}. Skin lesions are present in forms of erythematous nodules, erythematous papules, vesicles, pustules, pyoderma, folliculitis and acneiform eruptions and are positive in the pathergy test, developing a reaction one or two days after injection of a cutaneous lesion hyper-reactivity similar to a sterile pustule that is present in 40 and 80% of affected patients⁹. Posterior uveitis, retinal vasculitis, conjunctivitis, optic neuritis and retinal arteritis are frequent ocular manifestations, but anterior uveitis with hypopyon is the classical manifestation in the beginning of the Behcet's syndrome. These ocular lesions may be reversible, but they may evolve to a cataract or glaucoma. The recurrence and gravity of these manifestations lead to a high rate of patients becoming blind, which makes necessary to perform an energetic and aggressive treatment for this disease¹⁰. The articular manifestations are present in over 50% of the patients and may precede, accompany or follow other manifestations of the Behcet's syndrome. It is characterized as monoarthritis or polyarthritis of an inflammatory and non-erosive nature¹¹. Neurological manifestations occur due to inflammation of the central nervous system and are not very frequent, due to vascular involvement at the location or because of peripheral polyneuropathy. The most frequent forms occur due to meningoencephalitis, caused by inflammation and not by an infection¹². Vascular manifestations are presented as superficial thrombophlebitis, venous thromboses or as arteritis. These arteritis are manifested by occlusive-thrombotic and aneurismatic phenomena that preferentially affect the aorta, pulmonary artery, popliteal artery, femoral artery, subclavian artery and less frequently, the carotid artery. Thus, they are responsible for heart attack or hemorrhagic phenomena indifferent organs¹³. Gastrointestinal manifestations preferentially attack the intestines and esophagus, and are manifested through abdominal pain, diarrhoea and occasionally by perforations¹⁴.

II. Clinical history

A 21 years male (60kg) student from Kolkata admitted to Peerless hospital, Kolkata India with history of sudden development of extensive maculopapular erythematous rash all over the body involving the lesions over lip and oral cavity and eye. Patient had low grade fever at the time of presentation (100⁰f) (for which he had taken some over the counter antibiotics and some analgesics) and complaining of diminution of vision. On detail questioning he also gave history of similar but mild episode in past with similar lesions over the eye, oral cavity and penis about 3-4 times in the in last two year for which he was managed as viral exanthema and sometimes as drug eruptions. On examination he was febrile (100⁰f) with erythematous lesions/ulcers about 0.5-1.5cm all over the body more concentrated over the face, extensors of upper limb and lower limb. He also had subconjunctival hemorrhage. He also had lesions over the penis involving glans and some portion of shaft. Per oral examination showed multiple ulcers involving the lips, tongue, palate, gums and posterior pharyngeal wall. Initial investigations showed Hb 14.8, PCV 44, MCV 79.9, TC 13140, N 76%, Platelet 287000, ESR 27, K 4.3, Na 143, Creatinine 1.07, Urea 23, Total bilirubin 0.6 conjugated 0.1, Total protein 8.2 Albumin 4.7, SGOT 27, SGPT 41, ALP 213. Initially he was managed with IV Fluids, analgesics and antipyretics and along with eye care/oral cavity care and care of ulcers over the body. Ophthalmology opinion was taken regarding his eye lesions who confirmed it as a subconjunctival hemorrhage, uveitis with small superficial corneal ulcers. Depending on this scenario we thought it could be Behcets Disease and skin biopsy was taken from chest wall ulcer. Gross examination showed two skin tissue pieces, larger one 1.2x0.8x0.5. All embedded. Microscopy showed epidermal atrophy with a sub corneal bulla and multiple intra-epidermal spongiotic vesicles. Dermis containing perivascular mixed inflammatory cells infiltrate with lymphocytes/polymorphs infiltration into the wall- suggestive of Behcets Disease. We also checked his vericella antibodies, VDRL negative, HIV (1+2) negative, Anti-HCV negative, HbsAg negative autoimmune profile which came out to be negative

After taking skin biopsy we started him on injection hydrocortisone 100mg thrice daily initially then shifted to oral steroids. The patient was medicated with 40 mg/day prednisone for 15 days and then 30 mg/day for 15 days, followed by 20 mg/day for 15 days then 10mg for 1 month and he was explained and counseled to be in close follow up. After two and half month of follow up he recovered completely from all the lesions. Till Now he did not have further episode of lesions and enjoying healthy life.

In accordance with the criteria of the International Study Group Criteria for diagnosing the Behcet's syndrome, with the presence of oral, genital, ophthalmic manifestations, his diagnosis being compatible with the Behcets syndrome.

III. Discussion

The Behcets Disease is a chronic inflammatory condition characterized by oral, genital, ocular, cutaneous, orthopedic, gastrointestinal and neurological manifestation. The International Study Group for Behcet's Disease recommends that in the diagnosis of the disease it is necessary to present oral lesions (recurrent oral ulcers) associated with two more manifestation: ocular, genital, and cutaneous or arthralgia, and thus need to be investigated properly through good anamnesis and multidisciplinary involvement to confirm the diagnosis, which implies a broader knowledge of the characteristics of oral and systemic disease^{4,7,11}

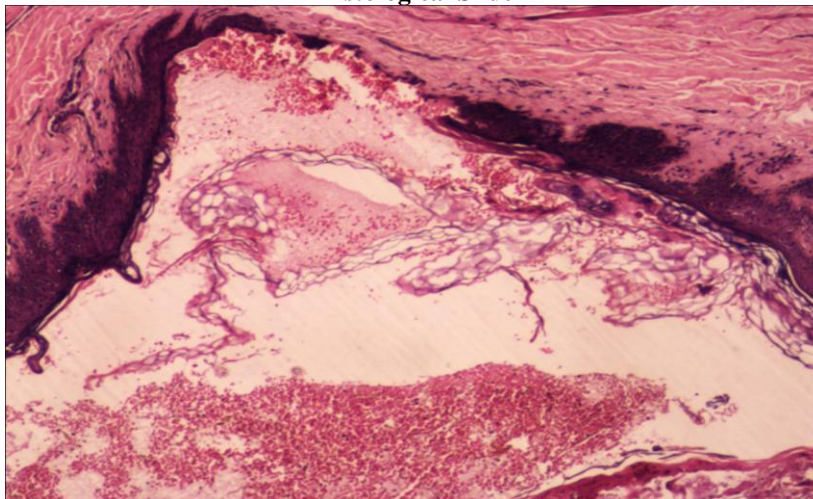
In light of these reports, we assume that many cases remain undiagnosed or unreported in this region due to lack of awareness regarding BD among clinicians in this region. The long duration of speculation prior to BD diagnosis as shown in the present case (2 years) exemplify the delay in diagnosis that typically results from this lack of BD awareness. Our patient had typical presentation for BD according to the ISGBD criteria but he was initially misdiagnosed as a viral exanthema or as drug eruptions at initial episodes.

Generally, BD responds well to steroids, with the combination of corticosteroids and immunosuppressant drugs being indicated when vital organs are involved⁵. Our patient responded very well to the steroids alone within 10 days of treatment with no vision sequelae as well as no systemic complications.

IV. Conclusion

This case emphasizes the need to increase awareness among clinicians in eastern India on Behcets Disease so as to timely diagnose and offer prompt treatment (steroids) to prevent ophthalmologic and other systemic manifestation. Further studies are needed to ascertain the prevalence and distribution of BD in India as well as in eastern part of India. Also History is very important particularly drug history and should not forget BD even if patient gives history of drug intake as the management of both these conditions is extremely different.

Histological Slide



Photographs Pretreatment



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