Butterfly rash with periodontitis: A diagnostic dilemma

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Abstract

Rashes can occur in any part of the body. But rash which appears on face has got both psychological and cosmetic effect on the patient. Rashes on face can sometimes be very challenging to physicians and dermatologists and those associated with oral manifestations pose a challenge to dentists. Butterfly rash is a red flat facial rash involving the malar region bilaterally and the bridge of the nose. The presence of a butterfly rash is generally a sign of lupus erythematosus (LE), but it can also include a plethora of conditions. The case presented here is of a female with butterfly rash along with typical bright red discoloration of gingiva. The clinical, histopathological and biochemical investigations suggested the presence of rosacea.

Keywords: Butterfly rash, flushing, lupus rash, malar rash, rosacea

Introduction

The presence of butterfly rash is typically a sign of systemic lupus erythematosus (SLE), but it can also signal a dermatologic disorder.[1] Typically, butterfly rash appears in a malar distribution across the nose and cheeks. The prevalence of oral manifestations in patients with butterfly rash is only 7.9%.[2,3] The case report presented here is of a 40 year old female with bright red discoloration of the skin involving the malar region bilaterally with the bridge of the nose and chin along with typical bright red colored swollen gingiva with shallow periodontal pockets and loss of attachment. The facial lesion became apparent with the intraoral lesion. Both the lesions exacerbated and relieved almost simultaneously which led us to correlate this dermatological condition to oral lesion.

Case Report

A 40 year old female reported to the Department of Periodontics, Institute of Dental Sciences, Bareilly, with the chief complaint of swelling and bleeding from gums associated with burning sensation since last two years and bright red discoloration of the skin involving the malar region bilaterally, bridge of nose and chin. Patient gave history of severe itching on the discolored region.

The medical and family history was non-contributory.

Extraoral examination revealed malar rash involving the chin accompanied by yellowish white pustules scattered along the discoloration. The discoloration appeared first on cheeks, followed by nose and finally the chin as shown in Figure 1, 2a, 2b, 2c, 2d. The discoloration was followed by acne, followed by pustules and finally the scar which healed by itself followed by its reappearance after 10-15 days.

Intraoral examination revealed bright red discoloration of the gingiva involving the marginal, interdental and attached gingiva extending from #14 to 22 and #43 to 31 and mild generalized inflammatory enlargement was noticed [Figure 2].

Detailed history from the patient revealed that the bleeding from gingiva was insidious, mild, intermittent, occurred only while brushing the teeth and aggravated on eating hard fruits. The swelling of gingiva was first noticed by the patient about 2 years back. It appeared first in the interdental region and then progressed to involve the other parts of gingiva. Swelling increased in size gradually, decreased thereafter two months for about 15 days, then regains its original size.

Radiographic findings [Figure 3] showed features of chronic generalized periodontitis with horizontal pattern of bone loss and angular defect at some sites.

Laboratory investigations carried out included routine blood investigations, LE cell phenomenon, ANA studies (antinuclear antibody studies), anti ds DNA (anti double stranded DNA). All values were found to be within normal limits.
**Histopathology**

Incisional biopsy of the specimen illustrated the presence of connective tissue stroma with eroded epithelium. Connective tissue stroma has chronic inflammatory cells, blood vessels and extravasated RBC’s. The above histopathological picture was suggestive of chronic inflammatory lesion.

**Treatment**

As the intraosseous lesion was interfering with mastication and extraoral with aesthetics, the patient was subjected to
Butterfly rash is a red, flat facial rash involving the malar region bilaterally and the bridge of the nose. It is most suggestive of systemic lupus erythematosus, but it might be seen in variety of other dermatologic diseases such as erysipelas, rosacea, seborrheic dermatitis, sarcoidosis, polymorphous light reaction etc. Females are affected more as compared to males.

Rash may appear as a prominent, non-scaling, intermittent erythema limited to lower half of the nose including the chin, cheeks and central forehead.

The rash may be flat or raised. The malar rash often appears or gets worse after sun exposure (photosensitivity) or stress that causes an increase in the circulation to the skin. Sometimes the butterfly rash appears on other parts of the body as well, usually on the trunk, arms or legs. The malar rash is itch free and painless. It may be short-lived or may last for many months. The reason the malar rash is shaped like a butterfly is because it follows the angle that the UV rays land on skin. It is caused by a malfunctioning immune system, which causes the body to attack healthy tissues in the skin.

The present case is of a 40 year old female who presented with a butterfly shaped rash involving the chin and the forehead along with gingival manifestations.

The treatment was instituted to achieve improvement both intraorally and extraorally. The intraoral clinical picture could be suggestive of an inflammatory lesion but the picture did not improve completely after phase-I therapy. On the basis of the clinical findings, the tentative diagnosis of lupus erythematosus was made, with the differential diagnosis of erysipelas, polymorphous light reaction, rosacea, seborrheic dermatitis, and sarcoidosis. In the present case there was no systemic involvement and special investigations like ANA (anti-nuclear antibody) and anti double stranded DNA were negative so SLE was ruled out.

There was no history of previous throat infection, fever and leukocyte count was within normal limits, thus no evidence of erysipelas. No clinical involvement of scalp, eyelid margins and eyebrows.

The extraoral appearance was neither patchy nor thick adherent crusts, so seborrheic dermatitis was also ruled out. Patient did not give any significant history of medication allergy.

The patient presented with persistent redness, presence of pustules, absence of black heads, burning and stinging sensation along with gingival enlargement and discoloration which signaled rosacea.

Correlation of clinical, histopathological and other findings suggested the final diagnosis is rosacea.

### Conclusion

Management of the dermatological disorder associated with oral involvement is often a complex undertaking and requires a joint expertise and communication of clinicians to provide the patient with an optimal treatment plan based on scientific rationale. All that glitters is not gold similarly all the butterfly rashes are not lupus erythematosus so a dentist should look into and treat accordingly.

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