Psoriatic Arthritis of TMJ Presenting as a First Articular Complaint in Psoriasis

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ABSTRACT

Psoriatic arthritis (PsA) is a chronic inflammatory disease that can be progressive and can be associated with permanent joint damage and disability. The diagnosis is made mainly on clinical grounds based on the findings of psoriasis and inflammatory arthritis of the joints. Though we have many reports of TMJ involvement in psoriasis (Ps), patient generally complain pain in other joints as a first articular problem. Here is a case of Ps presenting TMJ arthritis as first articular complaint with clinical signs and symptoms. Early identification of PsA will enable the patients to be treated early and aggressively which requires a collaboration between oral physician, dermatologist and rheumatologists.

Keywords: Psoriatic arthritis, Temporomandibular joint, Psoriasis, Rheumatic arthritis, Oral physician.

INTRODUCTION

The first description of PsA was given in early 19th century but it was identified as distinct identity by American Rheumatology Association only in 1964.1,2 Prevalence of PsA varied widely from 6 to 42%.3,4

Psoriatic arthritis of TMJ is seen in small percentage of patients more often in females than males with long standing cutaneous psoriasis. The metatarsophalangeal and interphalangeal joints of toes and fingers are mostly affected. When TMJ is involved, the presentation is typically unilateral. The clinical features and radiological findings may be similar to that of rheumatoid arthritis. Articular involvement is typically manifested with onset of pain, limitation of joint motion and signs of inflammation.5

PsA of TMJ are generally underdiagnosed and early detection of PsA of TMJ and physical therapy or non pharmacological therapy, such as splints by dental clinicians along with pharmacological therapy directed toward each manifestation by rheumatologist, will yield maximum benefit to the patient.6

CASE REPORT

A 40-year-old man, software engineer, presented to our institution with a chief complaint of pain and swelling in the right auricular region and difficulty in opening of mouth for the first time for 3 days. No history of trauma, fever or orofacial infections. Patient had no history of significant pain in any joints till then. He was diagnosed and has been under treatment of Ps skin irregularly. Family history and social history are not relevant. Review of systems shows rash or psoriasis seen on various parts of skin (Fig. 1) and dandruff for 3 years. No ocular inflammation, no cough, no cramping, no genital lesions, no back stiffness and no back pain.

On physical examination, hair is normal and skin shows psoriatic plaques on scalp, neck, hands, fingers, chest, etc. Isolated pitting of nails is seen in both hands (Fig. 2). Conjunctiva shows no inflammation. No signs of anemia and jaundice. Peripheral articular; right and left knee synovitis—none. Ankle synovitis—none. No axial articular tenderness is seen. Inspection of TMJ reveals mild facial asymmetry with swelling on right TMJ (Fig. 3), trismus of 2 cm mouth opening and inability to occlude the posterior teeth fully is seen. On palpation, right TMJ is tender with limited condylar movements. Cervical lymph nodes are not palpable.

We clinically diagnosed the case as TMJ Arthritis associated with Ps, i.e. PsA of TMJ. Differential diagnosis—trauma, septic arthritis, rheumatoid arthritis and reiters syndrome.

On investigation, complete blood picture (CBP) is normal with an ESR of 40 mm/hr. Rh factor is negative. Computed tomogram (CT) TMJ shows osteoporosis, destruction of cartilage and bone without any ankylosis. Erosive lesions are seen on right condyle (Fig. 4), left condyle shows no significant radiological changes (Fig. 5). The case is diagnosed as PsA of TMJ (CASPAR criteria)7 and advised to restart the treatment for Ps NSAIDs given for a week helped him for symptomatic relief he is not cooperative for allopathic treatment and he is willing for alternative medicines, such as homeopathy.
DISCUSSION

Ps of skin may predate the onset of cases or follow the onset of arthritis 15% of cases. Characteristic but not necessarily pathognomic features of PsA include nail involvement (pitting) separation from nailbed (known as onycholysis) and yellow discoloration (known as oil drop sign), dactylytis (sausage digits) and absence of RH factors. The classification of psoriatic arthritis (CASPAR) criteria is likely to become the standard tool for establishing case definitions for clinical studies. According to the CASPAR criteria, presence of three of the following five features in a patient with inflammatory articular disease (joint, spine or entheses) are required to make a diagnosis of PsA: (a) Current psoriasis or personal history of psoriasis or family history of psoriasis, (b) psoriatic nail dystrophy including onychomycosis, pitting and hyperkeratosis, (c) a negative test for rheumatoid factor, (d) current or past history of dactylitis and (e) radiological evidence of juxta articular new bone formation.

Radiographically, psoriatic arthritis is a unique blend of bone destruction and proliferation. Manifestations may include erosive arthritis giving rise to the classic "pencil-in-cup" deformity in the phalanges, whereas in TMJ condylar destruction, narrowing of joint space anterior position of condylar head, flattening of articular eminence, erosion of condylar head and roof of glenoid fossae and osteophytic formation may be noted.

PsA can produce erosive joint disease and impairment in the quality of life comparable to that produced by RA.
Clinical features that distinguish PsA from RA include distal interphalangeal joint involvement, asymmetrical joint involvement, oligoarticular disease pattern, enthesitis and relative lack of rheumatoid factor positivity. Just like in RA, the rapid control of signs and symptoms along with a delay or prevention of radiological joint damage and maintaining good functional capacity is the aim of therapy. It has been shown that early and aggressive control of disease activity in RA leads to good outcome. Similar results can be expected from early treatment in patients with moderate to severe PsA. The risk factors for severe disease include polyarticular disease, elevated acute phase reactants, evidence of disability and erosive joint disease, as well as demonstration of lack of response to initial therapeutic agents. There is a need for increase in awareness about PsA of TMJ in patients and dermatologists for an early and accurate diagnosis of PsA. Ideally, the dermatologist and rheumatologist, along with oral physicians should work as a team to supervise all aspects of the patients TMJ PsA.

Our understanding of the etiology and pathophysiology of psoriatic arthritis remains incomplete. However, what is known can be summarized as follows. Genetic factors play an important role as evidenced by the 70% concordance for psoriasis in monozygotic twins; 50-fold increased risk of developing psoriatic arthritis in 1st degree relatives of patients with the disease; and epidemiologic association with the expression of both class I and class II HLA alleles including -B13, -B17, -B27, -B38, -B39, -Cw6, -DR4, and -DR7. Environmental factors have also been implicated including infectious agents (Streptococci and Staphylococci) and trauma.

(Koebner phenomenon) that may precipitate the onset or a flare of disease activity. T-cells have been demonstrated to play a role in both initiation and perpetuation of disease activity. Interestingly, peripheral joint activity in psoriatic arthritis parallels cutaneous activity in one-third of cases.

Treatment options include NSAIDs, intra-articular or low-dose systemic corticosteroids, and a variety of ‘disease-modifying’ agents, including antimalarials, gold, methotrexate, sulfasalazine, azathioprine and cyclosporin A. The TNF inhibitor, etanercept (Enbrel®) is also an approved therapy for patients with psoriatic arthritis.

The type of therapy employed for PsA depends upon the severity of joint involvement at the time of presentation. Mild joint inflammation may be controlled using nonsteroidal anti-inflammatory drugs (NSAIDs). Severe cases of PsA that present with polyarticular joint involvement or destructive progression require early disease administration of many of the traditional disease modifying antirheumatic drugs (DMARDs). Newer biologic agents have shown promise in treating PsA refractory to the traditional drug therapies. Long-term, perhaps lifelong, treatment with the DMARDs is required in patients with active disease.

CONCLUSION

We report a rare case of PsA of Right TMJ (asymmetrical oligoarthritis) as initial first joint pain complaint from the patient side. NSAIDs helped him for symptomatic relief and though he is in favor of taking alternative medicine, such as homeopathy medicine, such cases can be effectively treated with a teamwork of oral physicians, dermatologists and rheumatologists.

REFERENCES