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Presentation of A Case Series of ankylosing spondylitis at a private hospital in Andhra Pradesh and their response to various treatment modalities

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Abstract

The term, 'ankylosing' has been derived from the Greek word, 'ankylos', which means stiffening of a joint, while 'spondylos' means vertebra. The aetiology of ankylosing spondylitis is unknown, and it primarily affects the axial skeleton. Familial incidence is common. Approximately 90-95% of the patients with ankylosing spondylitis are positive for the human leukocyte antigen B27 (HLA-B27) assay. The age of onset is second or third decade of life and males are affected two to three times more than females. The Assessment of Spondyloarthritis International Society (ASAS) classification criteria for axial spondyloarthritis (axSpA) developed in 2009 was a major step forward, since the 1984 modified New York (mNY) criteria for classification of ankylosing spondylitis (AS) were too insensitive to identify patients with early signs of axial inflammation. In this study, we have studied 8 patients, all of them below 40years, all of them presented with morning stiffness of more than 30minutes, all of them are HLA B27 positive, all of them have elevated ESR and CRP. Absence of sacroilitis on imaging at presentation delayed their diagnosis at different centers and few of them got diagnosed as rheumatoid arthritis.

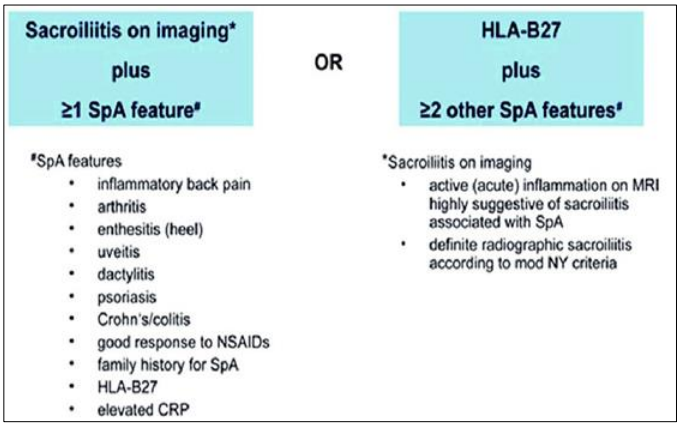
Conclusion: Application of ASAS criteria helps in early diagnosis of ankylosing spondylitis and prevents morbidity. Also by adding Platelet rich plasma (PRP) or intraarticular steroid (IA) therapy helps in relief of pain which is not controlled by NSAIDS and DMARDS alone.

Keywords: Ankylosing Spondylitis, Sacroilitis, ASAS Criteria, Consanguineous, Morning Stiffness, HLA-B27

Introduction

The term, 'ankylosing' has been derived from the Greek word, 'ankylos', which means stiffening of a joint, while 'spondylos' means vertebra. The aetiology of ankylosing spondylitis is unknown, and it primarily affects the axial skeleton. Familial incidence is common. Approximately

90-95% of the patients with ankylosing spondylitis are positive for the human leukocyte antigen B27 (HLA-B27) assay, as compared to 7% positivity in the general population [1–4]. The age of onset is second or third decade of life[5] and males are affected two to three times more than females [6]. The Assessment of Spondyloarthritis International Society (ASAS) classification criteria for axial spondyloarthritis (axSpA) developed in 2009 was a major step forward, since the 1984 modified New York (mNY) criteria for classification of ankylosing spondylitis (AS) were too insensitive to identify patients with early signs of axial inflammation. The aim of this study is to draw attention to varied presentation of ankylosing spondylitis, relevance of ASAS criteria over mNY criteria and use of procedures both medical and injections in improving quality of life.



Methods: We present here 8 patients with their clinical presentation to our hospital.

1) Two brothers presented to us born from consanguineous marriage of their parents. Elder sibling aged 33 years presented with 5-year history of morning stiffness of 45minutes, difficult to get up from bed, limited chest expansion and positive HLA B27. Younger sibling aged 29 years presented with 4-year history of morning stiffness of 1year, pain in sacral area and ankle area; radiating pain from back to right buttock, legs and difficulty in forward bending. Younger sibling has positive HLAB27, Sacroilitis on imaging, enthesitis, elevated CRP. Both siblings showed sacroilitis on imaging and good response to NSAIDS and Sulphasalazine. Younger sibling was given PRP (platelet rich plasma) therapy to relieve joint pain and sciatica which showed excellent results.
2) One female aged 36years from same family (maternal side) came to us on wheel chair, back pain with morning stiffness of 1hour, HLA B27 positive and sacroilitis on imaging. She had excellent response to NSAIDS, sulphasalazine and PRP therapy to Sacroiliac joint.
3) One patient is a 13year old boy with 3year history of back pain and morning stiffness of 1hour, recurrent uveitis, enthesitis, elevated CRP born out of consanguineous marriage and HLA B27 positive. He did not show sacroilitis on imaging but showed straightening of lumbosacral spine and disc bulge L4-L5 causing thecal compression. He showed marked improvement to NSAIDS and sulphasalazine.
4) Another patient is a 15year old boy born out of consanguineous marriage presented with morning stiffness of 45minutes, recurrent uveitis since 3years, enthesitis, elevated CRP, arthritis involving knee and ankle and HLA B27 positive but did not show sacroilitis on imaging. He showed marked improvement to NSAIDS and sulphasalazine.
5) One male 35-year-old born out of non consanguineous marriage and no family history presented with 10-year history of 1hour of morning stiffness, pain improves with work, knee pain, elevated CRP, HLA B27 positive and no sacroilitis on imaging but he had L4-L5 disc bulge. Schober

test positive in this patient. With NSAIDS and sulphasalazine and tofacitinib he showed improvement in knee pain, inflammatory markers returned to normal but he had morning stiffness and back pain persisting. He was given intraarticular(IA) steroid which showed marked improvement.

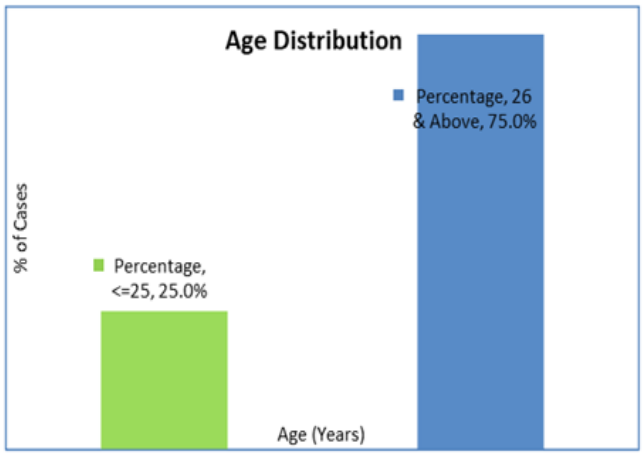
6) 38-year-old female born out of non consanguineous marriage presented with 6-year history of 1 hour of morning stiffness, small joint pains, high ESR and CRP, HLA B27 positive, metacarpal squeeze test positive. She was treated with oral steroids and methotrexate, hydroxychloroquine for 6years by various doctors without relief. We started her on tofacitinib, sulphasalazine and NSAIDS with excellent response. Her ESR, CRP reduced, morning stiffness and small joint pains reduced. Her anti CCP came negative. Recently she presented with right lower back discomfort and MRI showed sacroilitis.

7) A33year old male born in consanguineous marriage, family history of ankylosing spondylitis, HLA B27 positive, morning stiffness of 30minutes, difficulty in forward bending showed L4-L5 disc bulge and no sacroilitis. We started him on Indomethacin and sulphasalazine. He showed marked improvement in all parameters.

Results

All patients are less than 40 years, HLA B27 positive, had morning stiffness, elevated inflammatory markers, difficulty in bending and showed significant improvement with NSAIDS and sulphasalazine, tofacitinib as evidenced by improvement in pain score and daily activities and morning stiffness. Two patients showed excellent response to single joint intraarticular injection. Sacroilitis was not observed in all patients at presentation but developed later in the course of disease.

Figure 1:



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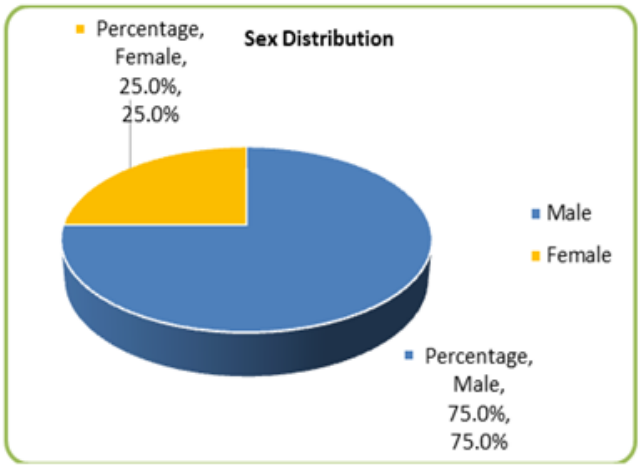

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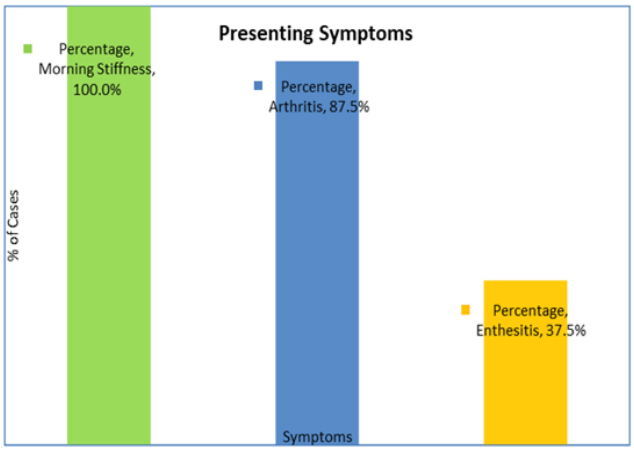

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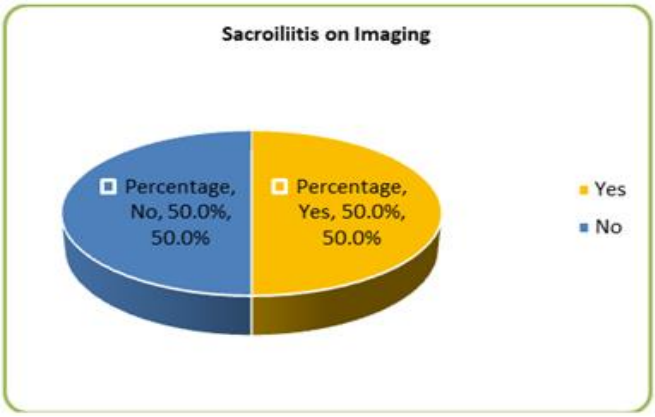

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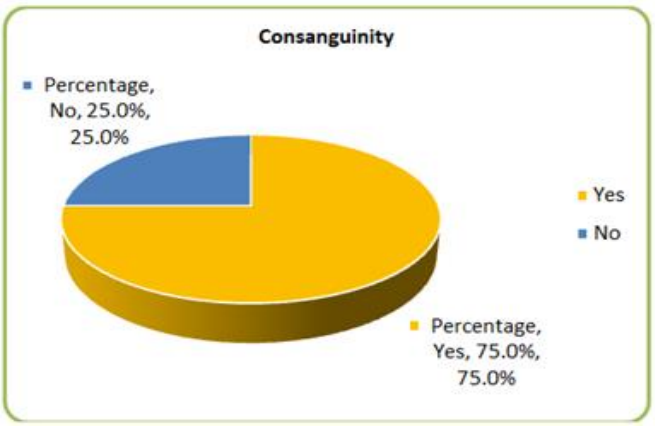

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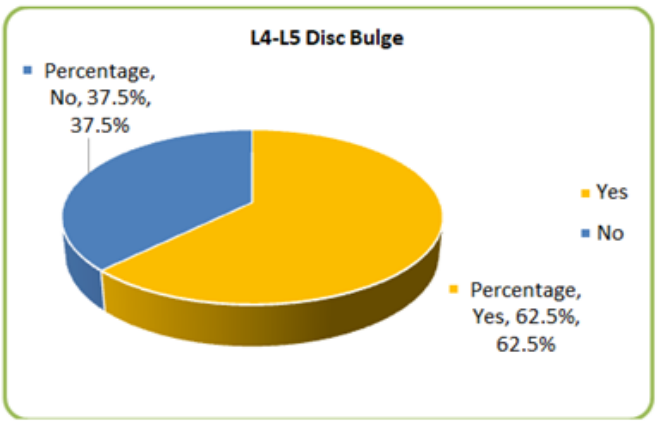

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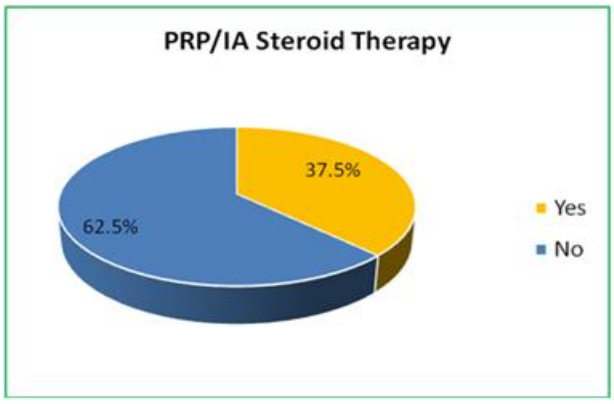

Conclusion

Ankylosing spondylitis typically affects axial skeleton where as our patients also showed predominant appendicular skeleton involvement. Importance of family history and application of ASAS criteria helps in diagnosis even in the absence of sacroilitis. Application of PRP and intraarticular steroid therapy to affected joints improves quality of life.

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