CLINICAL PRESENTATION OF SPONDYLOARTHROPATHY : A STUDY OF 61 PATIENTS

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Abstract

Spondyloarthropathies (SpA) are a group of chronic inflammatory rheumatic disorders that share distinctive pathophysiologic, genetic, clinical and radiological features. Inflammatory back pain with or without arthritis of the peripheral joints together with certain extra skeletal features are characteristics signs and symptoms of theses disorders. The traditional profiles defining this group include ankylosing spondylitis (AS), psoriatic arthritis (PsA), enteropathic arthritis, reactive arthritis (ReA), undifferentiated arthritis (uSpA), and juvenile onset ankylosing spondylitis (JAS). We studied over 61 patients attending in the Department of Physical Medicine and Rehabilitation, Chittagong Medical College Hospital during a period of 9 months from June 2006 to February 2007. Data collected directly interviewing patients using a formulated data sheet o identify patients with diagnosis of SpA who fulfilled the diagnostic criteria proposed by European Spondyloarthropathy Study Group criteria (ESSG Dougdas et al 1991). Our aim was to see different clinical presentation of SpA in our study area. Out of 61, 26(42.41%) patients presented with inflammatory spinal pain. 15(26.6%) patients presented with asymmetrical oligoarthritis and 20(33.3%) patients presented with combined presentation. Spine involvement were lumbo-sacral spine 26(42.61%), thoraco-lumbar spine 12(20%) and cervical spine 10(16.30%). Lower limb joints involved commonly and knee was the most commonly involved peripheral joint 20(33.3%). 16(24%) patients presented with more than two additional criteria along with inflammatory spinal pain or asymmetrical oligoarthritis. Only 4(6.66%) patients involved upper limb joints. 10(16.3%) patients gave history of alternate buttock pain, 41(68.33%) patients presented with enthesopathy.8(13.3%) patients presented with psoriatic skin and nail changes, 4(6.66%) patients gave family history of diagnosed SpA. Features of sacroilitis evaluated in 26(42.60%) patients, out of them radiological sacroilitis was present in 12(20%) patients and all gave history of juvenile onset of the disease. 3(5%) patients gave history of diarrhea and dysentery within one month of arthritis. 13(20.66%) patients presented with deformities. No patient presented with symptomatic inflammatory bowel disorders (IBD).

Key words: spondyloarthropathy; clinical presentation

Introduction

SpA a group of disorders that share certain clinical features and association with HLA-B27 allele. These disorders include ankylosing spondylitis (AS), psoriatic arthritis (PsA), enteropathic arthritis, reactive arthritis (ReA), undifferentiated arthritis, juvenile onset ankylosing spondylitis (JAS)[1]. The term Reiter's syndrome is no longer used as an eponymous distinction; ReA is now generally considered a sufficient descriptive term [2-6]. There are several reason for grouping these disorders under this heading : arthritis involving both axial and peripheral joints, enthesopathy, tendency towards family aggregation, strong association with HLA-B27 antigen,rheumatoid factor negativity, extra-articular manifestations (conjunctivitis, buccal ulceration, prostatitis, urethritis, bowel ulceration, nail dystrophy, anterior uveitis, cardiac conductive defect, erythema nodosum)[7]. A male child can be affected before 16th birthday, presentation usually oligoarticular with or without enthesitis later on at their adolescent or adulthood develop typical presentation of AS, termed as juvenile onset ankylosing spondylitis (JAS)[1,8]. Female usually affected later than the male. The common etiological threat of these disorders is their striking association with HLA-B27 antigen, particularly AS. The present brief paper discusses the clinical profile of 61 patients with SpA seen in the Department of Physical Medicine and Rehabilitation, Chittagong Medical College Hospital. An attempt has been made to ascertain the clinical profile above 16 years of age.

Methods and materials

This study included patients over a period of 9 months

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from July 2006 to February 2007. Data collected from the patients directly interviewing patients using a formulated data sheet containing history and physical examination to identify patients with diagnosis of SpA who fulfilled the ESSG criteria[8]. Verbal consent taken from each patient before inclusion in the study. Diagnostic criteria modified from ESSG[7] for SpA were : inflammatory spinal pain or asymmetrical oligoarthritis plus one of the following – alternate buttock pain, IBD, psoriasis, enthesopathy, radiological sacroilitis, family history, burning sensation during micturition, diarrhea, dysentery within 1 month of arthritis. Patients found to have associated mechanical back pain, myofascial pain syndrome, fibromyalgia, MCTD, TB arthritis and septic arthritis excluded from the study. All patients had the following tests : Blood R/E, RA factor, C-RP with titre, MT test, serum creatinine, SGPT, urine R/E, CXR (P/A view), x-ray cervical spine, x-ray thoraco-lumbar spine, x-ray lumbo-sacral spine and synovial fluid analysis in suspected cases of septic arthritis.

Results

We studied 61 patients over a period of 9 months. Out of them 52 were male and 9 were female. The mean age of presentation in case of male and female were 24± 2.6 and years respectively. Average disease duration was 4.5years (ranging from 6 months to 20 years). Disease under 16 years of age was in 16 patients and above 16 years was in 45 patients. The most frequent clinical picture was: 26(42.60%) patients presented with inflammatory spinal pain, 15(26.6%) patients presented with exclusive asymmetrical arthritis and 22(33.3%) patients presented with combined presentation. Spine involvement were lumbo-sacral spine 26(42.60%), thoraco-lumbar spine 12(20%), cervical spine 10(16.30%). Knee was the most commonly involved peripheral joint 20(%33.3). Only 4 (6.66%) patients involved upper limb joints. 10(16.3%) patients gave history of alternate buttock pain, 41(68.33%) patients presented with enthesopathy. 8(13.3%) patients presented with psoriatic skin and nail change, 4(6.66%) patients gave family history of diagnosed SpA. Iritis evaluated in 2 cases. Features of sacroilitis evaluated in 26(42.60%) patients; out of them radiological sacroilitis was present in 12(20%) patients and all gave history of juvenile onset of the disease. 3(5%) patients gave history of diarrhea and dysentery within one month of arthritis.13(20.66%) patients presented with deformities (kyphosis, scoliosis, kyphosis-scoliosis, fixed flexion joint deformity). No patient presented with symptomatic inflammatory bowel disorders (IBD).

Table I : Demographic data of study population (N=61)

Age at onset (yrs.)	
Male	24 ± 2.6
Female	28 ± 2.2
Sex	
Male	52
Female	09
Education	
< SSC	45
> SSC	16
Presentation	
Before 16 yrs	16
After 16 yrs.	45
Average disease duration (yrs.)	
Male	5.5 (.25 – 20)
Female	6.5 (.25 – 20)

N = total number of study population

Table II : Different clinical presentation

Characteristics	Patients number (%)
Inflammatory spinal pain	26 (41.42%)
Peripheral arthritis (asymmetrical)	15 (26.6%)
Combined presentation (Spine plus peripheral arthritis)	20 (33.3%)
Enthesopathy	41 (68.63%)
Clinical sacroilitis	26 (42.6%)
Radiological sacroilitis	16 (24.4%)
More than 2 plus criteria	16 (24.4%)
Deformities	13(20.66%)
Psoriasis	08 (13.3%)
H/O mucositis (Diarrhea, Dysentery)	04 (6.66%)
Positive family history	04 (6.66%)
Alternate buttock pain	04 (6.66%)
Conjunctivitis	03(4.80%)
IBD	0%

Table III : Pattern of joint involvement

Name	Patients number (%)
S-I joint	26 (41.4%)
Knee	20 (32.8%)
Ankle	15 (24.6%)
Shoulder	04 (6.6%)
Hip	04 (6.6%)
Metatarsophalangeal joint	04 (6.6%)
Elbow	02 (3.27%)
Wrist	02 (3.27%)

Table IV : Enthesopathic presentation (n = 41)

Site	Patients number (%)
Plantar fascia	20 (32.8%)
Achilles tendon	16 (26.2%)
Patellar tendon	12 (19.6%)
Symphysis pubsis	05 (8.2%)
Costo-chondral joint	05 (8.2%)
Iliac crest	05 (8.2%)
Anterior superior iliac spine	05 (8.2%)
Origin of adductor muscle of thigh	05 (8.2%)
Base of 5th metatarsal bone	05 (8.2%)
Head of all metatarsal bone	05 (8.2%)

n = total number of enthesopathy

Discussion

According to the ESSG classification criteria the most frequent clinical picture was: 26(42.60%) patients presented with inflammatory spinal pain, 15(26.6%) patients presented with exclusive asymmetrical peripheral arthritis and 20(33.30%) patients presented with combined presentation. Spine involvement were lumbo-sacral spine 26(12.61%), thoraco-lumbar spine 12(20%), cervical spine 10(16.30%) cases. Synovitis evaluated in shoulder and hip joint was 5 and 4 patients respectively. Lower limb joints involved commonly than upper limb and knee was the most commonly involved peripheral joint 20 (33.3%). Only 4(6.66%) patients involved upper limb joints. 10(16.3%) patients gave history of alternate buttock pain, 41(68.33%) patients presented with enthesopathy that was found in plantar fascia, Achilles tendon, patellar tendon, symphysis pubis, iliac crest, costochondral junction, anterior superior iliac spine, origin of adductor muscle of thigh, base of 5th metatarsal bone, head of all metatarsal bone. The most commonly involved enthesopathic site was plantar fascia 20(48.8%). 8(13.3%) patients presented with psoriatic skin and nail change, 4(6.66%) patients gave Family history of diagnosed SpA. Features of sacroilitis evaluated by Patrick's and Gaenslens[9] test in 26(42.60%) cases, out of them radiological sacroilitis found in 16(24.4%) patients. 3(5%) patients gave history of diarrhoea and dysentery within one month of arthritis. No patient presented with symptomatic inflammatory bowel disorders (IBD). In an international literature reviewed by the Dougdas et al out of 406 patients 168 (41.7%) patients presented with inflammatory spinal pain, 68(16.9%) patients presented with psoriasis, 41(10%) patients presented with history of diarrhea and dysentery within one month of arthritis, 17(4.2%) patients presented with inflammatory bowel disorder (IBD)[10]. This study finding closely resemble to our study except the number of IBD. In our study we did not find any patient presenting with clinical features of IBD. Because of our limitation we did not explore the patients to evaluate asymptomatic microscopic number of IBD by doing iliocolonoscopy routinely[11]. Patients presented with red eye and iritis evaluated by slit-lamp examination in two cases. Disease onset before 16 years of age is about 15% with 40% possibility in developing country[11]. In our study it was 26%(16 patients). 13(20.66%) patients presented with deformities (kyphosis, scoliosis, kyphosis-scoliosis, fixed flexion joint deformity) and all gave history of juvenile disease onset. 7 patients developed kyphosis, 6 patients developed kyphosis-scoliosis. The average age of developing deformities is at least 10 years[10] and we found in our study it was 10 ± 3 years. Spinal deformity measurements were: occiput-wall distance > 2 cm found in 5 patients, chest expansion <2.5 cm found in 5 patients and schober's test found to be positive (<3cm) in 12 patients. Spondyloarthropathy strongly associated with HLA-B27 antigen, especially AS (>90%) but 5-10% of AS patients may present with HLA-B27 negativity. HLA-B27 antigen may be positive in 8-10% of normal population and can be differed in different ethnic group and geographical region. For these reason HLA-B27 typing can not be thought of as routine, diagnostic, confirmatory test for SpA[12]. So we avoid routine screening for HLA-B27 typing in SpA patients. Clinical presentation usually occurs before 40 years of age[13], in our evaluation it was in case of male and female 24 ± 2.6 years and 30 ± 2.2 years respectively.

Conclusion

Spondyoarthropathy involves the most active part of human life irrespective of men and women in our community. Early diagnosis will help the physician to give proper managenment of this kind (SpA) of rheumatic disease.

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