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AB0943 SIGNIFICANCE OF MUSCLE VOLUME & FATTY DEGENERATION OF LUMBAR PARASPINAL MUSCLE IN SPINAL IMBALANCE

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Background: Spinal sagittal imbalance which is closely associated with low back pain is considered as a factor in a variety of spinal disorders.
Objectives: The present study was to determine the relationship between the sagittal imbalance and sarcopenia, especially cross sectional area (CSA) and fatty degeneration (FD) of muscle around the spine.
Methods: Overall, 165 patients are included in this study, classified by three groups according to the distance from sagittal vertical axis to posterior end of upper end plate of sacrum.
38 patients were classified as group 1 (distance ≥9cm), 50 and 53 patients as group 2 (distance 5–9cm) and group 3 (distance <5cm), respectively. For measurement of CSA and FI of paraspinal muscles, five transverse T1W images of S1-S5 were obtained from PACS and measured with Adobe Photoshop 7.0®, by counting the number of pixels included in each selected muscle area. A variance analysis on average muscle surface area of those five images was done with SPSS 19.0 Windows version (SPSS Inc., Chicago, IL, USA).
Results: The average age of total patients was 69.1, average BMI was 22.57 and bone density was -2.34 (T-score).
No significant differences were detected on ages, BMI, and bone density. Each correction coefficient of multifidus, erector spinae and psoas muscle was 0.80, 0.75 and 0.81, respectively.
CSA of paraspinal muscles has significant differences between group I and III, II and III. Psoas has significant differences between all groups. FI has significant differences between all groups in multifidus and between I and III, II and III in erector spinae. But, psoas has no significance between three groups.
Conclusions: Authors were able to detect significant muscle atrophy in the group with severe imbalance. And degeneration of paravertebral muscle has significant increased with sagittal imbalance. Effort for preventing weakness of muscle around spine might cause influence to alignment of spine.
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Paediatric rheumatology

AB0944 USE,SAFETY AND EFFICACY OF ETANERCEPT IN JIA–A SINGLE CENTRE RETROSPECTIVE STUDY FROM NORTH INDIA

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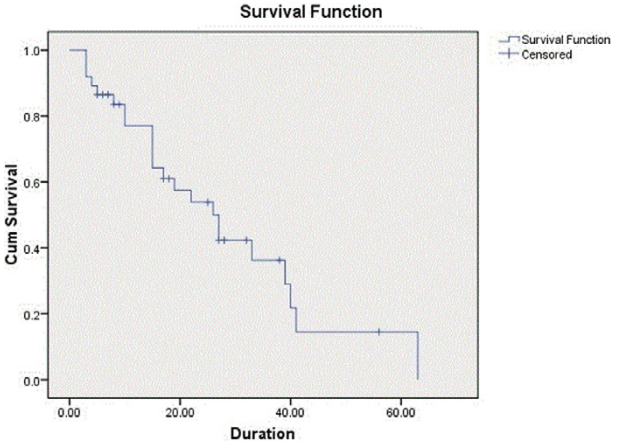
Background: The treatment paradigm for Juvenile Idiopathic Arthritis (JIA) has changed in last decade:Early diagnosis,objective assessment & appropriate use of biologic response modifiers (BRMs) are common place.Etanercept (Et) is available in India for 15yrs. BRM use in developing world is fraught with challenges: cost, high burden of Tuberculosis (TB) & retention. In view of the cost & safety concerns regarding TB, at our centre, full dose Et is used for 3–6 mths, followed by dose tapering as tolerated.
Objectives: 1. To determine the use, safety & efficacy of Et in JIA. 2. To determine the factors that determine responders vs non responders. 3. To determine the factors that determine disease free survival on stopping Et
Methods: This study was done from 15thJune'15 to15thDec'16 (18mths) at Sir GangaRam Hospital. *Inclusion criteria:* All JIA pts who took Et for min 12 wks & attended the outpatients during the study period. *Outcome:* All pts who achieved the Wallace criteria of inactive ds, clinical remission on (CRoM) or off medication within 4 months were termed as responders.
Results: *Use:* 46pts recd Et (29M,17F). Median (Md) age at JIA onset: 9.08yrs (1.16–16.5).Md delay to diagnosis: 4mths (0.5–63). Md age at initiation of Et: 11.6yrs (4.25–20.3). *Indications:* Partial response to Intraarticular steroids/bridging steroids & DMARD-32; Started upfront for high ds.burden: 14. *Diagnoses:* ERA30 (65%), Poly JIA8 (17%), OJIA 3 (7%), SOJIA 3 (7%) & UJIA 2 (4%). *Safety:* Screening: Mantoux +ve: 6, Quantiferon+ve: 2,antitubercular therapy for latent TB: 8. Side effects: 41 (88%) had no adverse event. 5 pts - 1 each had enteric fever, varicella, uveitis, hemolysis, malaria. *Follow up:* Md duration of follow up-47.5 mths (2–147). *Medications at last follow up:* Et ongoing in 20 (43.5%), 12 on 2nd BRM, 12 off BRM & 2 lost to follow up. *Status at last follow up:* Of 37 responders - 8 currently active.
Responders vs non responders: 37 responded (2 excluded duration <12 wks). In all responders drug was tapered/stopped. No demographic, clinical, lab criteria could predict responder from non responder (Table 1).

	Responders (37/44)	Non Responders (7/44)	p value
Md time to inactivity post Et	9wks (1–52)	–	
Md time to flare	15m (3–63)	–	
Md duration of taking Et	18m (3–56)	5.5 m (2–22)	0.01
Md Time to first taper Et	5m (1–34)	2m (1.5–16)	0.44
Median ESR	38 (4–125)	63 (22–125)	0.08
SJC ≤4 jts >4 jts	29 (78.4%) 8 (21.6%)	4 (57.1%) 3 (42.9%)	0.34
TJC ≤4 jts >4 jts	32 (86.5%) 5 (13.5%)	4 (57.1%) 3 (43%)	0.10

Of 37 responders, 15 (40.5%) did not show any flare (Table 2).

	Flared (22/37)	Never flared (15/37)	p value
Md time to inactivity post Et	11wks (1–36)	6 wks (2–52)	0.43
Md time to flare	15m (3–63)	18m (3–33)	0.74
Md duration of Et	17.5m (3–53)	25m (6–56)	0.64
Md Time to first taper	5.5m (1–12)	4m (2–34)	0.58
Md time to stop steroids	3m (1–12)	2m (1–4)	0.16
Median ESR	28 (4–120)	45 (15–125)	0.29
SJC≤4 jts >4jts	17 (77.3%) 5 (22.7%)	12 (80%) 3 (20%)	1
TJC≤4 jts >4jts	19 (86.4%) 3 (13.6%)	13 (86.7%) 2 (13.3%)	1

Disease free survival on Et: Of 37 responders, 22 flared. No factors could predict flare in pts who recd tapering Et dose or after stopping Et. Some needed repeat cycles of Et/2nd BRM. Kaplan Meier curve of responders confirmed that no pt would be flare free at 63mths of follow up.



Conclusions: Et is safe to use & had no adverse events in 89%. Needed most for ERA. Effective in 84%. On using shortterm Et, 59% flared either on tapering/stopping. These pts responded to reinitiation of Et/BRM. On long term follow up (63mth) there were no flare free pts.
Disclosure of Interest: None declared
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AB0945 COHORT STUDY OF 112 PATIENTS WITH JUVENILE IDIOPATHIC ARTHRITIS DURING TRANSITION FROM PEDIATRIC TO ADULT CARE

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Background: Juvenile idiopathic arthritis (JIA) is the most common chronic inflammatory arthritis in children. The International League of Associations for Rheumatology 2001 (ILAR) classification includes 7 subgroups: systemic JIA, polyarticular JIA, oligoarticular JIA, enthesitis related arthritis (ERA), psoriatic arthritis and undifferentiated arthritis. Most paediatric inflammatory arthritides persist into adulthood. Therefore, a transition from paediatric to adult rheumatology is a necessary step. Transition is defined as an active process by which a young patient with a chronic disease develops skills and resources to gradually take control of their condition. The transition phase should be anticipated and structured because of the risk of failure in monitoring. However difference in classification criteria in paediatric and adult rheumatology can cause significant difficulty for adult rheumatologists.
Objectives: The aim of this study was to determine the characteristics of juvenile-onset arthritis seen during the transition period and to compare *paediatric* classification criteria to those of adults.
Methods: A retrospective *bi-centre* study was performed. Patients with JIA according to ILAR classification were included and had a consultation at transition. JIA classification criteria were compared to ACR/EULAR 2010 criteria

for rheumatoid arthritis (RA), Yamaguchi criteria for adult Still's disease and ASAS criteria for spondyloarthritis.
Results: 112 patients were included: 17 systemic JIA, 26 polyarticular JIA, 19 oligoarticular JIA, 41 ERA and 9 psoriatic arthritis. The median age of transition was 19 years old. Eight cases of uveitis were observed among patients with oligoarticular JIA and 7 with ERA. Radiographic structural damages were assessed and showed 15% of patients with erosions or carpitis, mainly in polyarticular and systemic JIA patients. 29% of patients with ERA displayed sacroiliitis. In comparison with adult rheumatism, 42% of patients with systemic JIA fulfilled Yamaguchi criteria and 23% of patients with polyarticular JIA fulfilled ACR/EULAR criteria for RA. 41% of patients with oligoarticular JIA, 73% with ERA and 100% with psoriatic arthritis fulfilled ASAS criteria for spondyloarthritis.
Conclusions: Our study confirmed the articular destructive potential of polyarticular and systemic JIA and an ocular risk in oligoarticular JIA. Comparison of JIA criteria to adult rheumatism criteria showed that polyarticular JIA with positive rheumatoid factor fulfilled ACR/EULAR criteria for RA. However, oligoarticular JIA and polyarticular JIA without rheumatoid factor did not fulfill any adult rheumatism criteria and seem to be paediatric entities. Finally, most patients with ERA and psoriatic arthritis fulfilled the ASAS criteria for spondyloarthritis.
Disclosure of Interest: None declared
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AB0946 CALCINOSIS IN CHILDREN WITH JUVENILE DERMATOMYOSITIS FROM A SINGLE-CENTRE IN NORTH INDIA

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Background: Juvenile dermatomyositis (JDM) is a rare childhood autoimmune inflammatory muscle disorder that can result in severe disability or death. Calcinosis is a unique and a poorly understood long-term complication of JDM (1). Calcinosis can present in various forms like nodular calcinosis, tumoral deposits, calcinosis universalis.
Objectives: We present here the images of calcinosis in children with JDM
Methods: All children diagnosed to have JDM and registered in Pediatric Rheumatology Clinic at Post Graduate Institute of Medical Education and Research, Chandigarh, India, were evaluated for presence of calcinosis. Consent was taken from patients or caregivers
Results: A total of 36 patients were evaluated. Twelve (33.33%) patients had calcinosis (Fig 1). Interestingly, 4 children had calcinosis at the time of diagnosis

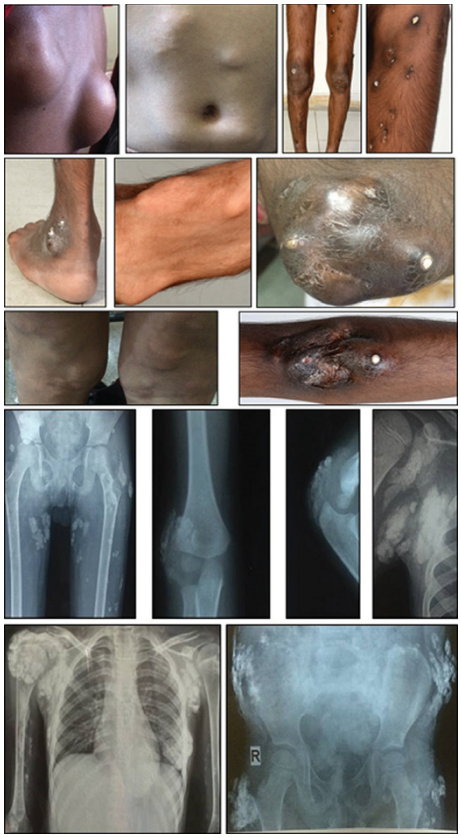

Figure 1. Calcinosis in children with JDM. Radiographs showing Calcinosis in children with JDM

Conclusions: Calcinosis is a distinct complication of JDM which is uncommon in inflammatory myopathies in adults (2). Calcinosis can be disabling and disfiguring. It may not be obviously visible in all patients and radiographs help reveal the extent of involvement.
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AB0947 CHARACTERISTICS OF A TRANSITION CLINIC FOR YOUNG PEOPLE WITH RHEUMATIC DISEASES

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Background: Paediatric rheumatologic diseases can still be active in the adulthood. Transitional care units are very important for the transition from paediatric to adult health care system.
Objectives: To describe the demographic characteristics, paediatric rheumatologic diseases distribution and active treatments in a Rheumatologic Transitional Care Unit (RTCU).
Methods: We included all new patients who attended the RTCU of a tertiary level hospital from 1st September 2015 until 31st December 2016. These patients were remitted from the paediatric rheumatology unit of two tertiary level hospitals. We retrospectively analyzed their demographic, laboratory and treatment characteristics. The connective tissue diseases (CTD) group included systemic lupus erythematosus, Behçet disease, dermatomyositis and scleroderma. Patients were considered active according to the physician opinion.
Results: We attended 81 new patients. 59 were female (72.8%) and the median age (range) was 19 years (18.1–20.7). 65.43% were diagnosed with Juvenile Idiopathic Arthritis (JIA) and 12.35% with CTD. Table 1 shows the main baseline characteristics of the patients. In the first visit at the unit, half of the patients did not have any systemic treatment (41 patients [50.62%]). From the remaining 40 patients with systemic treatment, 16 patients (40%) were under biologic treatment, mostly anti-TNFα. In any of the two first appointments, 20 patients (24.7%) were active, most of them from the JIA group. Seven (35%) of these patients increased or changed the treatment, 6 of them initiating a biologic treatment.

Table 1. Demographic and treatment characteristics

	Total (n: 81)	Juvenile Idiopathic Arthritis (n: 53)	Connective Tissue Diseases (n: 10)
Gender, Women (%)	59 (72.83)	39 (73.58)	9 (90)
Age of disease onset - Median (IQR)	10.3 (4.5–14.2)	6.5 (2.1–12.9)	14.4 (11.5–15.6)
Arrival age at the unit - Median (IQR)	19 (18.1–20.7)	19.1 (18.1–21)	19 (18.4–20.5)
Active in the 2 first appointments N (%)	20 (24.69)	15 (28.30)	4 (40)
Antinuclear antibodies, N (%)	32 (39.50)	20 (37.73)	5 (50)
Uveitis at any time, N (%)	11 (13.58)	9 (16.98)	0
Without treatment at the arriving time, N (%)	41 (50.61)	23 (43.39)	5 (50)
sDMARD at arriving, N (%)	30 (37.03)	25 (47.17)	5 (50)
Biologic therapy at arriving, N (%)	16 (19.75)	13 (24.53)	0

sDMARD: synthetic disease-modifying antirheumatic drugs. IQR:Interquartile range.

Conclusions: Our RTCU received mostly JIA patients. Median age at arriving was slightly higher than expected. A fourth of patients were active in the transition moment. All this data highlights the need of an strict control of these patients in the transitional period.
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AB0948 INSUFFICIENT CALCIUM INTAKE IN PEDIATRIC POPULATION WITH RISK FACTORS FOR OSTEOPOROSIS

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Background: Compliance with daily calcium requirements in paediatric and young age is necessary to acquire peak bone mass, especially in populations that meet one or more risk factors for fractures
Objectives: To study the characteristics of the pediatric population with at least one risk factor for developing low bone mass/osteoporosis and to measure their calcium intake
Methods: Demographic and clinical data were prospectively collected from patients aged 2 to 20 years that met at least 1 risk factors for bone fragility, including: inflammatory diseases, treatment with Immunosuppressants and/or