Rheumatology

G102  MULTICENTRE AUDIT OF MUSCULOSKELETAL EXAMINATION IN GENERAL PAEDIATRICS

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Objective: To describe case note documentation of musculoskeletal examination in routine paediatric medical clerking.

Methods: Case notes of consecutive paediatric medical patients admitted to 3 UK hospitals over a 4 week period were audited. All patients were to be reviewed by a Consultant. A standard proforma was used to include presenting complaint, in particular musculoskeletal symptoms, a record of systems examined and the findings, whether normal or abnormal.

Results: 257 case notes were included (Newcastle n=105, Birmingham n=100, Portsmouth n=52). The median age was 3 years (range 0-18), with 117 females. Diagnoses recorded (descending order) were infections, asthma, abdominal pain, headache, rash, accidental poisoning and problems relating to chronic diseases. Systems examined were respiratory (RS, 97% of patients), cardiovascular (CVS, 95%), abdominal (GI, 95%), central nervous system (CNS, 38%), skin (32%), eyes (10%), musculoskeletal (MSK, 4%). 11 patients had a MSK examination, and the recorded diagnoses were “ limp”, reactive arthritis, back pain, impetigo, diarrhoea, asthma: in all 11 cases the examination was limited (eg. hips only examined). 7 patients were documented to have been asked about MSK complaints, yet only 4 had documented joint examination performed. Similar trends were noted in all 3 hospitals.

Conclusions: MSK examination was rarely recorded, which contrasts markedly with other systems which were examined in most children irrespective of the presenting complaint. Even in those children presenting with MSK complaints, a record of MSK examination was sometimes not recorded in the notes and in most cases any attempt at MSK examination was limited. MSK symptoms are common in children and can be the presenting feature of severe life threatening illness. This study shows that MSK examination is not part of the routine medical examination in children and this needs to be addressed in undergraduate and postgraduate training.

G103  APPLICATION OF THE ADULT GALS SCREENING EXAMINATION IN SCHOOL AGE CHILDREN

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Objective: To describe case note documentation of musculoskeletal examination in routine school age children.

Methods: Consecutive school age children (new/review patients) were examined by a Yr.4 Rheumatology SpR (AM) who performed a GALS examination (without a history being taken and blinded to the diagnosis). All patients were examined, same day by a Paediatric Rheumatologist (HF/MF). Both examinations were recorded separately using a proforma and the examiners were blinded to each other’s findings.

Results: 33 patients (17 girls, median age 10 yrs (range 4-16)) were recruited over 4 weeks. Diagnoses included inflammatory arthritis (JIA, n=23), SLE (n=2), osteogenesis imperfecta (n=1), joint hypermobility (n=5) and anterior knee pain (n=2). The GALS screen had high sensitivities and specificities (table) for examining most joints, but missed important abnormalities including ankle, foot and TMJ disease, leg length discrepancies, hypermobility, patella tendon insertion pain, enthesis, Trendelenberg positive hip disease and tenosynovitis.

Conclusions: The adult GALS screen is a useful screening examination tool but needs to be modified for routine use in school age children.

G104  CYCLOPHOSPHAMIDE USE IN JDM—RETROSPECTIVE CASENOTE REVIEW OF EFFICACY AND SAFETY

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Background: A proportion of Juvenile Dermatomyositis (JDM) patients have disease refractory to conventional treatments, or have a pattern which is considered high risk for disease related morbidity and mortality, including complications such as ulceration, calcinosis, GI vasculitis and respiratory compromise.

Methods: Retrospective casenote review of 12 such JDM patients treated with CYP. Clinical parameters used included the Childhood Myositis Assessment Scale (CMAS), muscle strength score (five muscle groups), vasculitic score (score from each system involved), skin score, muscle enzymes (CK, LDH), inflammatory marker (ESR), full blood count (FBC), and steroid dose.

Results: The cohort consisted of equal sex ratio, mean age at treatment 7.7 years. Previous drugs included steroids, methotrexate, cyclosporin, and immunoglobulin. Patients were given bolus IV CYP at monthly intervals. They were then reviewed on an individual basis as to further monthly to 3 monthly doses. Two patients were given CYP whilst ventilated in PICU but subsequently died. At 6 months, 10 patients showed a significant improvement in the following: CMAS (p=0.01), muscle strength (p=0.01), vasculitic score (p=0.01), Skin (p=0.01), LDH (p=0.03), CK (p=0.09) and prednisolone dose (p=0.08) were reduced, but calcinosis was unchanged. ESR did not change significantly. The clinical improvement was maintained post CYP. The mean cumulative dose was 5.88mg/m² (3.9mg/m²). Mean number of doses was 8.5 (6-14). Significant side effects included lymphopenia which resolved after completion of CYP treatment. One patient developed febrile neutropaenia, 3 herpes zoster infections, 4 suffered alopecia and 3 low grade infections.

Conclusion: CYP was effective in treating severe and resistant JDM. In our experience there were no serious side effects.

G105  CLINICAL RESPONSES TO ETANERCEPT IN SYSTEMIC ARTHRITIS MEASURED BY “CORE SET” OUTCOME VARIABLES

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This study has addressed the observation that children with systemic arthritis appear to have a poorer response to etanercept than that seen in other forms of arthritis of JIA. Using core set data, we aimed to evaluate responses to etanercept in systemic arthritis and other forms of JIA.

Methods: Twenty four patients with JIA were commenced on etanercept and assessed prospectively according to a standardised protocol administered at set time intervals. Core set data were recorded. Patients were defined as responders or non-responders at the 30% level (Giannini et al 1998). Data from the 6 month visit on 13 patients were evaluated, 9 with systemic arthritis (SA) and 4 with other forms of JIA (non-SA).

Results: The majority of the patient population (10 of 13 patients) were classed as responders to etanercept; the 3 patients who were non-responders all had SA. Mean percent improvement (MPI) i.e. difference between core set data at initiation of etanercept and at the 6 month evaluation for each variable of the core set was calculated for both the SA and non-SA groups. Overall for both groups, the MPI of each variable was > 25%. For 3 variables, the SA group did worse than the non-SA group: restricted joint count (MPI SA : MPI non-SA = 37.8:61.3), physician VAS (47.5:67.5) and ESR (45.7:55.2). In contrast, the MPI of the other variables was equivalent: (MPI SA : MPI non-SA) active joint count (73.5:69.0), patient or parent VAS (34.4:36.0), and CHAQ (28.2:32.6). A large difference in disease duration at initiation of etanercept between the two groups was noted: SA=3.4 years : non-SA=3.2 years.

Abstract G103

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Conclusions: The observation that systemic arthritis does not respond as well to treatment as other, non-systemic forms of JIA is supported by this study. A difference in disease duration before initiating drug may contribute to the observed differences. Some disparity between individual variables comprising the "core set" was noted, supporting the need for further research to define clinically useful disease activity and outcome variables in systemic arthritis.

Discussion: The BPRG guidelines have developed from a consensus of opinions and represent a broad view of management of JIA within the UK. The aim of each treatment protocol is to reduce or withdraw treatment. Our results show that in the management of oligoarticular and polyarticular JIA patients we broadly adhered to the guidelines. Variations which occurred related to the timing of treatment rather than a change in treatment options except in one patient with asymptomatic, mild disease.

Conclusion: The guidelines are workable and our management complied with them.

G107 A COMPARISON BETWEEN THE MANAGEMENT OF EARLY JUVENILE IDIOPATHIC ARTHRITIS (JIA) AT WEXHAM PARK HOSPITAL WITH THE PUBLISHED GUIDELINES BY THE BRITISH PAEDIATRIC RHEUMATOLOGY GROUP (BPRG)
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Background: In 2001 the BPRG published guidelines for the early management of childhood arthritis. This included treatment algorithms for patients of osteoarthritis when one to four joints are involved, when more than four joints are involved and for systemic onset JIA. We have reviewed how our management at Wexham Park compared with these guidelines.

Methods: Data were collected from consecutive patients over a three month period who attended the paediatric clinic and had been diagnosed with JIA within the past three years. Patients with systemic onset JIA were not included because of small numbers.

Results: 37 patients (29 females, 9 males) were studied. 19 were in group A (1-4 joints involved); 17 had oligoarticular, one had enthesitis-related and one had psoriatic JIA. Group A: The management of 14 patients complied fully with the guidelines. Of the remaining five patients the only variation from the guidelines in three was in the duration between follow-up visits. One patient had delayed treatment because of behavioural problems and one patient, because of prolonged in-patient treatment to correct severe flexion deformity of the knee, was reviewed more frequently than the guidelines suggest. Group B: The management of 16 patients fully complied with the guidelines. One patient had asymptomatic disease controlled on non-steroidal anti-inflammatory drugs alone and one patient had delayed treatment due to social reasons.

Conclusions: The CHAQ appears to be sensitive to change and consistent with other parameters of patient wellbeing in JIA. For JIA subgroups, differences in initial CHAQ scores and rates of improvement reflected the predicted differences in disease activity. Appropriate alterations in treatment regimens appeared to parallel changes in CHAQ scores. This study supports the potential role of the CHAQ in routine clinical management of JIA patients.

G109 A MULTI-CENTRE AUDIT OF THE TRANSFER PROVISIONS MADE FOR YOUNG PEOPLE WITH JUVENILE IDIOPATHIC ARTHRITIS (JIA)
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Aim: Young people with JIA and their parents report that transfer to adult services can be distressing and call for greater preparation. The aim of this study was to assess the provisions made for the transfer of patients with JIA to adult rheumatology care within the UK.

Methods: A case-note audit of the last 20 patients transferred to adult rheumatology care was conducted in participating centres (n=10). Analyses employed simple descriptive statistics.

Results: Data are available for 8 centres and include 135 patients (71% females). Most frequent diagnoses were rheumatoid arthritis (24.4%), systemic arthritis (18%) and extended oligoarthritis (15%). Mean age at disease onset was 8.4 ± 5.4 yrs, at first diagnosis of arthritis 18-6 yrs and at transfer 18.9 ± 5.6 yrs. Conclusions were involved in 8% of transfers. Involvement of various multidisciplinary professionals ranged from 3-58%. Few patients had a transitional plan (3%) and only 2% received written information about transition. Documentation of education was evident in 58% of cases, careers 45%, exercise 39%, home/social support 25%, peers/social life 21%, driving 16%, alcohol 15%, sexual health 12%, weight/diet 10%. Future independent utilisation of health services 8%.
A COMPARISON OF ELECTIVE ORTHOPAEDIC VS ADULT
RHEUMATOLOGY CLINICS. (1) THE DOCTOR
PERSPECTIVE
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Aims: Transitional care for adolescents with chronic rheumatic disease involves preparation for the transfer to adult rheumatology clinics. The differences between paediatric and adult clinics need to be acknowledged by both adolescents and health professionals. The objectives of this study was to assess the number of people present during consultations in paediatric and adult rheumatology clinics and to compare the characteristics of these consultations.

Methods: Consecutive physician outpatient consultations for a paediatric and adult rheumatology clinic were examined. Demographic characteristics of the patients were recorded with the number of people present in the consulting room and the length of the consultation. Patients were asked to complete a child or adult health assessment questionnaires (CHAQ or HAQ). Comparisons were made between the clinics for the number of people in the room, the length of the consultation. Patients were asked to complete a child or adult health assessment questionnaire (CHAQ or HAQ). Comparisons were made between the clinics for the number of people in the room, the length of the consultation (unpaired t-test) and the proportions of patients (pts) seen alone and the proportions of patients (pts) seen alone (chi-squared test).

Results: Data from 150 paediatric and 117 adult consultations (18 and 6 clinics respectively representing an average no of pts per clinic of 8 vs 19 respectively) were collected. Mean age and M:F ratio of pts at paediatric and adult clinics were 10.1±4.96yrs, 1:1.9 and 54.6±15.98yrs, 1:1.8 respectively. Most frequent diagnoses were juvenile idiopathic arthritis (78.6%) and rheumatoid arthritis (36%). The median CHAQ score (available for 96/150 pts) was 0.63 (range: 0 – 2.8), median HAQ (available for 81/117 pts) 1.125 (range: 0 – 2.895). 6% of all paediatric pts were seen alone by physicians, [age range 16 – 21], 26.7% [n=8/30] of paediatric pts ≥15yrs were seen alone. 41% of paediatric patients attended with their mother, 38% with both parents. Siblings attended 11% of consultations. A significantly lower proportion of older teenagers were seen alone compared to adults (p<0.001). 74.3% [n=87] of adult patients attended the consultation alone. Of those not attending alone, 76% (n=23) attended with their spouse or partner. The mean total number of people in the consulting rooms (including doctor and patient) was greater in the paediatric clinics 3.89±0.87 (range=2.8) vs 3±0.6 (range=2.4) p<0.001. The mean consultation times were 33.9±14.61 min [paeds] vs 14.6±9.31 min [adults] p<0.001.

Conclusions: There are significantly more people in the consulting room with doctors in paediatric than adult clinics. Adult clinics were significantly different in appointment duration and number of patients per clinic. These issues have implications for consultation dynamics and communication skills, venue (size of room etc), service provision (appointment duration) in addition to the preparation of older teenagers for transfer to the adult rheumatology setting.

INCREASED DENTAL DECAY AND POOR ORAL
HYGIENE IN JUVENILE IDIOPATHIC ARTHRITIS (JIA)
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Aim: Poor oral hygiene and dental decay cause significant morbidity and patients with chronic disease. This study aimed to investigate patients with JIA using standardised measures of oral health.

Methods: Patients with JIA were recruited from the Regional paediatric rheumatology service and adults with JIA were attending the adult Rheumatology clinic. Random age and sex matched healthy controls were recruited from a dental teaching hospital. The structured dental examination included standard epidemiological indices of oral hygiene (gingival index, plaque index, oral cleanliness index) and dental decay (DMFT index). Ethical approval was obtained.

Results: 149 patients (females n=107) were recruited. The median age was 17.9 years (range 2-50), with a median disease duration of 10.8 years (range 1-42). A spectrum of JIA subtypes was seen (oligoarticular onset [n=65], including 20 with extended course), polyarticular onset [n= 49, including 14 who were rheumatoid factor positive], systemic onset [n=33], psoriatic arthritis [n=13] and enthesitis related arthritis [n=11]. JIA patients, at all ages, had increased levels of dental decay and poor oral hygiene. This increased level of decay was statistically significant in the 0-11 year olds (the dmft for the 0-11 year olds was 1.46 ± 2.58, compared to controls (0.56 ± 0.96) (p=0.027). Significant levels of untreated caries and increased levels of missing teeth were found in JIA, suggesting that patients with JIA had less restorative dental treatment with tooth extraction often being the chosen option for treatment of dental decay.

Conclusions: This is the largest study of oral health in JIA and is case controlled. It shows significantly increased levels of poor oral hygiene and dental decay in patients with JIA. The high levels of untreated dental decay suggest barriers to dental care. These results emphasise the role of regular dental care in the multidisciplinary management of JIA.