Midland Rheumatology Society
Spring Meeting 2016

Friday 18th March
Charles Hastings Education Centre, Worcestershire Royal Hospital
Charles Hastings Way, Newtown Road, Worcester, WR5 1DD

08:30 Coffee and Registration
09.20 Welcome and Introduction
09.30 Towards Early Arthritis Management: A TEAM Approach
Professor Christopher Buckley, Consultant Rheumatologist
10.30 Clinical Papers
1. Suspected Temporal Arteries - An Audit Of A Patient Pathway
   A Yousif, S Shiralkar, H Atukorale, K Douglas, N Erb, H John, A Pace, R Sandhu, R Klocke
2. Incidence of ANCA associated vasculitis AAV in a UK mixed ethnicity population
   F Pearce, PC Lanyon, MJ Grainge, R Shaunak, A Mahr, R Hubbard, RA Watts
3. Assessing The Impact Of The Application Of The Proposed New 2014 International Criteria For Behçet's Disease In A Tertiary Referral Centre
   T Blake, L Pickup, C Maxton, D Carruthers, E Damato, A Denniston, A Poveda-Gallego, J Hamburger, PI Murray, S Powell, A Richards, V Sewell, D Mitton, D Situnayake
4. Anti Tnf Monotherapy In Ankylosing Spondylitis - Do We Need Routine Blood Monitoring?
   S Curtin, A Moorthy
11.30 Coffee Break
12.00 Vasculitis Assessment Tools
Professor Raashid Luqmani, Consultant Rheumatologist
13.00 Lunch
Poster Viewing and Opportunity to Sample the On-line BVAS Training with Prof. Luqmani, IT Suite

West Midlands Specialised Rheumatology CRG Meeting
Claines Room, Kings Court
14.15  Clinical Cases

15.00  BSR Update  Regional Chairs

15.30  Tea/Coffee

15.45  Clinical Papers
5. Providing More Than Knowledge: The Impact Of The Aspire Rheumatology Course On Clinical Activities And Confidence
   A O’Brien, C Thwaites, S Ryan, D Lloyd, J Edwards, V Chalam, D Mulherin, S Barber

6. Atypical Femoral Fractures Associated With Bisphosphonate Use In North Staffordshire A Five Year Retrospective Analysis
   G Kasavkar, S Khan, D Bhavsar, N Eisenstein, Z Paskins

7. Are We Screening Appropriately For Pulmonary Complications In Systemic Sclerosis? Results From 2 Centres In The East Midlands
   E Mulla, L Chenciner (Co-authors), F Pearce, S Shaffu, S Johnson, W Hassan, PC Lanyon

8. Audit Of Leicester Guidelines On Management Of Suspected Giant Cell Arteritis And Referral Pathway For Temporal Artery Biopsy
   J Neale, T Barami, J Burns, A Moorthy

16.45  Victorian Surgery, Phrenology and the Not-So Good Old Days!
   Louise Price, Curator of the George Marshall Medical Museum

17.15  Tour of the George Marshall Museum

18.00  Dinner at The Swan, Whittington, WR5 2RL (just off Junction 7 of the M5)
   5 minutes by car from the hospital (Directions from WR5 1DD to WR5 2RL, http://binged.it/1RQyMsv) and 1 minute from M5 Junction 7.

This Meeting is Approved by Royal College of Physicians, London
(6 CPD points code 103096)

Sponsored by Bristol-Myers Squibb, Celgene, Chugai-roche, Napp Pharmaceuticals and Pfizer.

The sponsors have provided payment for an exhibition stand space at this educational meeting and have had no control over the agenda and arrangements.

In accordance with the ABPI code of practice, the funding obtained is solely for the Spring Midland Rheumatology Society Meeting on the 18th March 2016 and not intended for use for the after course lecture and dinner.
Clinical Papers
Background: Temporal arteritis (TA), a rheumatological emergency, can present a diagnostic challenge for clinicians. Temporal artery biopsy (TAB) may secure the diagnosis, but the considerable false negative rate means that the diagnosis of TA relies strongly on clinical experience and judgment. In the absence of generally accepted diagnostic criteria for TA, classification criteria such as by the ACR (1990) originally developed and intended for research purposes only, are often used to assist clinicians in diagnosing the condition. We have conducted an audit of the Dudley Group FT Suspected TA pathway and looked at the sensitivity and specificity of ACR criteria as a diagnostic tool.

Methods: We prospectively collected data of patients referred to the Rheumatology department with suspected TA both from primary care and acute medicine departments between February and June 2015. Data included demographics, time from referral to 1st rheumatology assessment, symptoms and signs, inflammatory markers, TAB results, time from steroid commencement to TAB date, and met ACR GCA Criteria. The clinical diagnosis at 4 weeks following first assessment was used to calculate sensitivity and specificity for ACR criteria when used as a diagnostic tool and for temporal artery biopsy.

Results: Data was available for 30 patients. 21/30 (70 %) were females, median age (range) 74 (40-89) years. Median ESR and CRP were 51 mm/hr and 29 mg/l respectively. Twenty-two (73 %) were treated as TA at 4 weeks. Median time (range) from referral to 1st rheumatology assessment was 4 (1-15) days. At least 3 of 5 ACR criteria were positive in 21 (70%): 27 (90%) for criterion age≥50, 27 (90%) for new headache, 21 (70%) for clinical temporal artery abnormality, 13 (43%) for ESR≥50, 4 (13%) for positive TAB. Nine (30%) had visual symptoms. The sensitivity and specificity of the ACR criteria was 86% and 75%, respectively. TAB was performed in 17 (57%) patients. The median (range) time from steroid commencement to TAB was 8 (3-17) days. TAB was negative in 13 of the 17 patients; 12 of which were treated as TA regardless of their negative TAB result. Only 1 of the 13 was not treated as TA, however this patient was not suspected as GCA when initially assessed by rheumatologist and the biopsy was requested by the referral team beforehand. The sensitivity and specificity of TAB was 25% and 100%, respectively.

Conclusion: This audit demonstrated rapid access to first rheumatology assessment and temporal artery biopsy in our pathway. Temporal artery histology had a lower than historically reported sensitivity and did not influence or alter the diagnosis and management in the majority of our patients treated as TA. The use and impact of TAB on clinical management may merit re-evaluation by clinicians requesting TAB.
INCIDENCE OF ANCA ASSOCIATED VASCULITIS AAV IN A UK MIXED ETHNICITY POPULATION

F Pearce¹,², PC Lanyon¹, MJ Grainge², R Shaunak³, A Mahr⁴, R Hubbard¹, RA Watts⁵

¹Division of Epidemiology, University of Nottingham, ²Nottingham University Hospitals NHS Trust, ³Derby Hospitals NHS Trust, ⁴Hospital Saint-Louis, Paris, ⁵Norwich Medical School, University of East Anglia

Abstract
Background: There are no published data on the incidence of ANCA-associated vasculitis (AAV) in the UK. In this study we aimed to estimate the incidence of AAV within a White and Black / Minority Ethnic (BME) population.

Methods: As part of an audit of AAV care, incident cases of AAV were identified from medical records at Nottingham University Hospitals Trust and at the Royal Derby Hospital from multiple sources. Inclusion criteria were residence in the Nottingham-Derby urban area, and new diagnosis of AAV according the EMEA classification criteria between March 2007 and June 2013. The denominator population was calculated from the 2011 census data. Incidence rates and 95% confidence intervals were calculated by ethnicity, age and sex, and adjusted using Poisson regression.

Results: The main results are in table 1. Overall we identified 107 incident cases of AAV. The overall annual incidence of AAV was 23.1/million (95% CI 18.9-27.9). The annual incidence of AAV among the White population was 25.8/million (21.0–31.3), and among the BME population was 8.4/million (3.1-18.3). In univariable regression analysis, increasing age, male sex and White ethnicity were all significantly associated with increased incidence of AAV. When combined in multivariable regression analysis, the effect of ethnicity was reduced, and the adjusted incidence rate ratio for the BME compared to White population was 0.7 (95% CI 0.3-1.5, p=0.3). Further confounding by social class did not seem to be present – chi-squared test of IMD 2015 quintiles for cases of AAV compared to the whole study area was not significant (p=0.2).

Conclusions: Overall the incidence of AAV was similar to other epidemiological studies in the UK and worldwide. This is the first report to show the incidence of AAV in a mixed ethnicity population in the UK. Crude incidence rates were lower in the BME than White population. Once adjusted for age and sex, the incidence in the White and BME population was similar, but the confidence intervals were wide. Further studies are needed in larger populations.

Table 1: Incidence of AAV in Nottingham and Derby 2007-2013

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Cases</th>
<th>Denominator population</th>
<th>Incidence rates (95% CI) per million person-years</th>
<th>Crude Rate ratios (95% CI)</th>
<th>Adjusted Rate ratios (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>101</td>
<td>627103</td>
<td>25.8 (20.7-30.8)</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>BME</td>
<td>6</td>
<td>113968</td>
<td>8.4 (3.1-18.3)</td>
<td>0.3(0.1-0.7)</td>
<td>0.7 (0.3-1.5) P=0.3</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>43</td>
<td>376931</td>
<td>18.3 (13.2-24.6)</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Male</td>
<td>64</td>
<td>364140</td>
<td>28.1(21.7-35.9)</td>
<td>1.5(1.0-2.3)</td>
<td>1.8 (1.2-2.6) P=0.004</td>
</tr>
<tr>
<td>Age group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16-39 years</td>
<td>6</td>
<td>325168</td>
<td>3.0(1.1-6.4)</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>40-54 years</td>
<td>14</td>
<td>184233</td>
<td>12.2(6.6-20.4)</td>
<td>4.1(1.6-10.7)</td>
<td>4.0(1.5-10.4) P trend &lt;0.001</td>
</tr>
<tr>
<td>55-69 years</td>
<td>33</td>
<td>133053</td>
<td>39.7(27.3-55.7)</td>
<td>13.4(5.6-32.1)</td>
<td>12.8(5.3-30.6) P trend &lt;0.001</td>
</tr>
<tr>
<td>70-84 years</td>
<td>43</td>
<td>79578</td>
<td>86.4(62.5-116.5)</td>
<td>29.3(12.5-68.6)</td>
<td>28.6(12.1-67.5)</td>
</tr>
<tr>
<td>85+ years</td>
<td>11</td>
<td>19039</td>
<td>92.4(46.1-165.4)</td>
<td>31.3(11.6-84.7)</td>
<td>32.3(11.9-88.3) P trend &lt;0.001</td>
</tr>
</tbody>
</table>
Background:
As there is no diagnostic test for Behçet's Disease (BD), multidisciplinary assessment remains the gold standard for diagnosis. In 2014, an international team from 27 countries (not including the UK), described the New International Criteria for Behçet's disease. The Criteria were judged capable of “performing with good discriminatory potential (Sensitivity 94.8%, ISG 85%, specificity 90.5%, ISG 96%) regardless of country” and were felt to be “intuitive and easy to use in a wide variety of settings”. The authors suggested a role for mass screening and identification of possible BD.

Objectives: To assess the performance of the proposed new international criteria for Behçet's Disease in a UK setting.

Methods:
The following information was captured from the cohort: Patient demographics Frequency distribution of clinical characteristics of BD for patients with clinically confirmed BD, incomplete BD and a rejected diagnosis of BD. The proposed 2014 ICBD criteria were compared with the ISG 1990 in comparison to the gold standard multidisciplinary assessment at the Birmingham National Centre.

Results:
There were 200 females and 111 males. 41 cases were clinically diagnosed following multidisciplinary review but failed to meet ISG 1990 criteria. 35 of these went on to meet the ICBD 2014 criteria. 34 cases were ISG+ but BD was not confirmed clinically (including 14 clinically rejected BD diagnoses). This increased to 88 cases for the ICBD 2014 criteria (including 42 clinically rejected BD diagnoses).

Conclusions:
As expected, the proposed ICBD 2014 criteria were more sensitive at picking up cases than ISG 1990 using the multidisciplinary assessment process as the gold standard. Specificity was less than expected for both criteria, as in our hands some clinical features were not always judged either to be attributable to a possible BD diagnosis or confidently ascertained, though time and future follow up may improve performance. A more detailed expert gynaecological assessment has now been factored into service design. Those patients with ‘Incomplete BD’ form an interesting subgroup which may warrant more detailed examination e.g. those patients who present with posterior uveitis consistent with BD but fail to fulfil the classification criteria. Routine use of pathergy testing may enhance performance. ICBD may serve as a useful screening tool but in our hands in a predominantly white British population, may over diagnose BD patients given that the PPV is highly determined by the prevalence of disease. Our three national centres represent an ideal setting to extend our study.
Background:
NICE has approved a number of anti-TNF agents for use in ankylosing spondylitis. Rare side effects include cytopenias leading to bruising, bleeding and infections are recognised. The incidence of these side effects are classified as ‘rare’ do not usually need routine blood monitoring. There were no clear guidelines available for blood monitoring for patients on mono therapy of anti-TNF for ankylosing spondylitis. The frequent blood tests are inconvenient for patients and expensive to Health service. Moreover, AS patients reported as blood tests are time consuming and often interfere with busy schedules. In routine practice blood tests were rarely grossly abnormal and minor abnormalities often self resolve without intervention.

Aims:
1. To identify abnormal Blood test results in anti-TNF therapy mono therapy patients.
2. To identify any medical intervention required for abnormal blood tests
3. To develop cost effective local guidelines for monitoring anti-TNF mono therapy in AS

Methods:
We identified Ankylosing spondylitis patients on mono therapy from our hospital biologics data base. Identified patients blood monitoring were reviewed using hospital Pathology electronic system called I lab, we reviewed Blood test such as Full blood count, Urea and creatinine, Electrolytes, Liver function tests, CRP. The blood results were analysed at the base line first two years, and most recent results. The results were analysed using Excel spreadsheet.

Results:
We have 300 patients on Biologic therapy for AS. Randomly selected (N= 55) patients on Monotherapy were included for this Study. 39 were included for analysis and 16 were excluded due to lack of base line results on the new electronic system or previous DMARD use, less than 6 months on treatment. We noted 79% of our patients were male and 21% are female. Humira is the most frequently (69%) used Biologic therapy followed by Golimumab (18%), Enbrel(13%).The frequency of blood monitoring varies between 4,8 and 12 weeks. 43% of patients had 4weekly, 49% 8weekly and 8% three monthly monitoring. There are a number of blood abnormalities in patients with AS. Many of these are present during their first year of treatment with anti-TNF. Many of the abnormalities- notably low creatinine and low hemoglobin were present at baseline bloods before starting anti-TNF treatment. It is observed most abnormal blood results (92%) were in the first year of commencing Anti TNF treatment. 87% abnormalities are minor particularly in Full blood count 7.2 % had low neutrophil and 10.1% had low platelets,20.5 had eosinophilia. These are temporary and resolved with out discontinuation of Anti TNF treatment. Regarding Liver function tests results 17.9% had mild ALT Alteration and 57% of these resolved spontaneously and minor ALT abnormalities persisted after first year in 43%. This may be explained due to NSAID usage. However, we could not have noted any medical intervention or further investigation required. CRP alteration were transient as expected in this patient group and 83% improved or normalised. Only 18% had mild urea creatinine elevation and resolved spontaneously. It is noted none had any electrolyte abnormalities. The average cost for blood monitoring is £3.02 and for the year £36.24. If blood monitoring is carried out in a frequently it will cost more to the Health system.

Conclusion:
Blood monitoring in Anti TNF mono therapy patients may need more frequently in the first year. Subsequently patient can have blood monitoring less frequently. It is important to have some clear guidelines for this group of patients to deliver safe and cost effective care.
Providing more than knowledge: the impact of the Aspire Rheumatology course on clinical activities and confidence

A O’Brien1, C Thwaites2, S Ryan2, D Lloyd3, J Edwards3, V Chalam3, D Mulherin3, S Barber4

School of Health and Rehabilitation, Keele University1, School of Nursing and Midwifery, Keele University2, Cannock Chase Hospital3, Lay adviser4

Introduction:
The ASPIRE PG MD rheumatology modules are BHPR endorsed and have been offered at Keele University as Level 6 (degree) modules since 2004. The two Modules (Introduction to Arthritis and Allied conditions and Management of Arthritis, both at 15 credits) are each delivered over 5 days attendance. It is recognised that attending a course can increase knowledge, but there is less evidence documenting other aspects of professional practice a course may impact upon. We present the findings from one cohort to demonstrate the positive effects the ASPIRE rheumatology course has had for students (nurses and AHPs) undertaking this learning.

Methodology:
The students of 2014 (n=18), all rheumatology health professionals, were invited to anonymously evaluate aspects of the two modules both before starting (April 2014) and on completion (November 2014). A bespoke Google form was designed and iPads used to collect data. Demographic data, current aspects of the individual’s role in assessing and managing rheumatology patients, as well as confidence levels undertaking these activities were collected, totalling 25 questions.

Results:
Baseline data for the two modules was provided by nine students (50%) students from this cohort of 13 nurses, 3 Physiotherapists, 1 Occupational Therapist and 1 Pharmacist. Fourteen students (78%) completed the evaluation at the end of the course. Respondents had worked with rheumatology patients from 14 months to 10 years in both in and out-patient settings.

Clinical activities: On completion, students reported increased clinical activity in all aspects which were included within the curriculum. Eight students (89%) at the start of the module (all respondents (n=14) by the end) reported that patient education was a significant or major part of their role. Similarly there was increased involvement in drug therapy from 67% (n=6) to 86% (n=12). Most notably at the start of the Management module only 44% of the cohort (n=4) reported that reflection was a significant or major part of their current role, which increased to 79% (n=11) by the end of the module. Reflection on practice is a significant component of the revalidation process for nurses and AHPs.

Confidence: Of note only 11% (n=1) of respondents reported feeling confident/ very confident managing patients with chronic pain at the start of the Management module but by the end of the module this level of confidence had increased to 72% (n=10) . At the start 56% (n=5) of respondents reported feeling confident educating their patients, increasing to 93% (n=13) reported this by the end of the module.

Conclusion:
Our results have shown that undertaking the ASPIRE modules can positively impact on different areas of professional practice. Authors acknowledge these data are subjective, the sample size is small and based on only one cohort, but future work could involve work-based mentorship where colleagues could validate these findings. By increasing confidence and the ability to undertake a wider range of clinical activities, rheumatology nurses and AHPs are better equipped to meet the current needs of rheumatology patients.
ATYPICAL FEMORAL FRACTURES ASSOCIATED WITH BISPHOSPHONATE USE IN NORTH STAFFORDSHIRE
A FIVE YEAR RETROSPECTIVE ANALYSIS

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¹Rheumatology, Haywood Hospital, Stoke on Trent, United Kingdom,
²Trauma & Orthopaedics, Royal Stoke University Hospital, Stoke on Trent, United Kingdom
³Trauma & Orthopaedics, Royal Centre for Defence Medicine, ICT Centre, Birmingham, United Kingdom
⁴Research Institute for Primary Care & Health Sciences, Keele University, Stoke on Trent, United Kingdom

Abstract:

Background: There is a growing awareness of atypical femoral fractures (AFF) and mounting evidence for the association between these fractures and bisphosphonate (BP) use. In October 2013 the American Society for Bone and Mineral Research (ASBMR) published a review of the evidence, suggesting an incidence of AFF of 11 per 10,000 patient years of bisphosphonate treatment using a revised case definition. The objective of this study was to identify the incidence of AFF using the ASBMR revised case definition within North Staffordshire. We also aimed to audit post-fracture osteoporosis management, in line with guidance that BPs should be stopped after AFF.

Methods: A retrospective analysis was performed through interrogation of a comprehensive orthopaedic database of all admissions between July 2009 and June 2014. A list of all femoral fractures was generated and subsequently this was refined by exclusion of all fractures outside of the ASBMR-defined anatomical region, high-energy fractures, pathological fractures, and periprosthetic fractures. The radiographs of the remaining cohort (112) were assessed using ASMBR 2013 criteria for AFF. Additional data on bisphosphonate use and potential risk factors for AFF were obtained from medical records. In order to calculate number of cases per patient years of treatment, the total number patients on oral and intravenous bisphosphonates was estimated from primary care prescription records and secondary care day case records respectively.

Results: We found 11 cases of AFF, as defined by ASBMR, in the 5 year period studied. Among them seven patients were receiving bisphosphonate therapy, 1 patient was on denosumab, and three were not on any bone anti-resorptive treatment. In five patients, in whom the diagnosis was not recognised, bisphosphonates were continued after the fracture. These patients GPs have subsequently been informed. Two patients on bisphosphonates had concomitant vitamin D deficiency. No patients were on steroids. The incidence of AFF in our region is approximately 7 per 35167 patient years of bisphosphonates treatment.

Conclusion: The estimated incidence of AFF in North Staffordshire is markedly less than the latest published estimates suggest. This single-centre study has demonstrated that bisphosphonate therapy is not always stopped after these events, which may be related to lack of recognition/diagnosis of AFF. The rarity of these fractures and the resulting low number expected to be seen by any single clinician in their career may explain this finding. Local pathways need to be developed to facilitate communication between orthopaedics and osteoporosis services to enhance recognition and medical management of these patients. The determinants or risk factors for AFF are still not well evaluated; we also therefore propose that AFF should be incorporated in a national register to permit further investigation of possible associations and risk factors, possibly as part of the National Hip Fracture Database.
ARE WE SCREENING APPROPRIATELY FOR PULMONARY COMPLICATIONS IN SYSTEMIC SCLEROSIS?
RESULTS FROM 2 CENTRES IN THE EAST MIDLANDS

E Mulla¹, L Chenciner² (Co-authors), F Pearce²,³, S Shaffu¹, S Johnson²,³,⁴, W Hassan¹, PC Lanyon³,⁴.
¹University Hospitals of Leicester NHS Trust, ²University of Nottingham Medical School, ³Nottingham University Hospitals Trust, ⁴Nottingham NHS Treatment Centre

Background: Interstitial Lung Disease (ILD) and Pulmonary Artery Hypertension (PAH) are important manifestations of systemic sclerosis (SSc). They are the leading cause of mortality in SSc; PAH alone accounts for 30% of deaths amongst patients with SSc and confers a poor prognosis if left untreated, with a mean survival of 1.5–2.0 years following diagnosis. Therefore, early detection and continued monitoring of PAH and ILD are central to the clinical management of patients with SSc. In 2 separate institutional audits we aimed to assess compliance with the American College of Rheumatology (ACR) recommendations for annual pulmonary function testing (PFT) and transthoracic echocardiography (TTE) for early detection of ILD and PAH.

Methods: Data collection was performed independently at the University Hospitals of Leicester NHS trust (UHL), and Nottingham University Hospitals NHS Trust / Nottingham NHS Treatment centre (NUH) with permission from respective trust audit departments. Patients with SSc or SSc overlap disease were identified from outpatient rheumatology clinic registers and electronic laboratory records of indicative serology. We reviewed clinical letters, relevant investigations and serology reports.

Results: 168 patients (Mean age: 62±14, 89.9% female) were identified, 99 from NUH and 69 from UHL. 66.4% had limited SSc, 14.4% diffuse SSc, 12.3% overlap disease and 6.8% undifferentiated disease. 47.0% had ILD and of the 37 patients with ILD confirmed on CT scan at one centre 34 (91.9%) were under joint care with a respiratory physician – this data was only collected in one centre. 10.7% had PAH and all suitable patients were under the care of a national pulmonary hypertension centre. 74.4% had TTE in prior 18 months. 78.0% had PFT in prior 18 months. In one centre, the reasons for not having screening were explored. Out of the 20 patients without PFTs, 18 had appropriate reasons: Only 2 patients were suitable for screening, and both had letters expressing intention to arrange PFTs, but none were requested. Therefore in this centre, PFT in the last 18 months was achieved in 79/81 (97.5%). Of the 21 patients not receiving TTE, 18 had appropriate reasons. In 2 patients (as with PFTs) there was intention to request the test, and in 1 the reason was not clear. Therefore in this centre, TTE in the last 18 months was achieved in 78/81 (96.3%). Reasons considered appropriate for lack of screening included 1) usual hospital care was in another centre, 2) serious co-morbidities, 3) failure to attend the PFT/TTE tests that were arranged 4) current IV cyclophosphamide treatment for ILD.

Conclusions: Although a significant proportion of patients had not been screened with TTE and PFT in the 18 months prior to audit, in the one centre where the reasons for this were explored, compliance with the ACR recommendations were met in >96% of cases. The audits highlight that the majority of patients with SSc are over 60 years old, and nearly half of them have established ILD. This is despite the predominance of limited SSc, highlighting the importance of screening. This group with confirmed or suspected CTD-ILD are best served by coordinated assessment in joint rheumatology/respiratory clinics, preferably with access to same day one-stop PFT and CT. Audit data has a role to model the “service capacity” required for such clinics.
Background
Giant cell arteritis (GCA) is a medical emergency as it can be potentially sight threatening. British society of rheumatology (BSR) has produced guidelines on management of GCA\(^1\). Temporal artery biopsy (TAB) is gold standard in the management of large vessel vasculitis, however temporal artery biopsy accessibility is variable. To enable early referral and rapid initiation of therapy, University Hospitals of Leicester has established a local pathway for management of suspected giant cell arteritis and TAB.

Objectives
1. To evaluate the Leicester referral pathway
2. To see adherence to BSR guidelines in requesting Biopsy
3. To review the positive biopsy and identify the predictors of positivity.

Methods
Retrospective audit of all patients referred for TAB to ophthalmology between Jan 2015- Dec 2015 were included. Patients were identified from ophthalmology theatre list and data obtained from rheumatology and ophthalmology clinic letters. Piloted and redesigned proforma was used to collect the data. The data were analysed using Microsoft Excel (2007). Trust clinical audit department approval was obtained.

Results
Seventy-one temporal artery biopsies (n=71) were performed in 2015. Out of seventy-one, 19 (27%) were males and 52 (73%) were females. Median age was 75 years (66-80). Eighty percent were Caucasians and 19% were of Asian ethnicity. Forty percent of referrals originated from ophthalmology and 56% from rheumatology. Eighteen (25%) patients had a positive biopsy, 48 (68%) patients had a negative biopsy and 5 patients were inconclusive. Five percent (n=1) of positive results were of Asian ethnicity. In the positive biopsy group positive predictors were - age>65years (83%; n=15), female sex (83%; n=15) jaw claudication (67%; n=12), raised plasma viscosity & CRP (100%; n=18). Fourteen biopsy negative patients (29%) had normal plasma viscosity and C-reactive protein. Mean time between date of referral and date of biopsy was 6.8 days (3-14).

Conclusions:
Demographic profile of suspected GCA patients matched the literature data. All patients fulfilled ACR criteria for GCA diagnosis. Three quarters of patients had their biopsy within target time of seven days indicating an effective referral pathway. Three fourths of patients had negative biopsy and a third of this had normal inflammatory markers. Therefore, careful selection of patients’ for TAB will help the clinicians to use the TAB service by ophthalmologists’ effectively. Development of a scoring system using positive predictors (Age >65, Female sex, jaw claudication, raised inflammatory markers) could identify these. The pathway clearly enhanced the management of GCA in our unit.
AN AUDIT INTO ADHERENCE TO GUIDELINES BY CLINICIANS MANAGING VITAMIN D DEFICIENCY

Background:
Vitamin D deficiency is increasingly being recognised by clinicians. Our local protocol in Dudley is derived from guidance recommended by available the National Osteoporotic society (NOS). Oral supplements are recommended as first line treatment (in the absence of malabsorption). There is perceived variability on how clinicians manage vitamin D deficiency. Many are receiving supplementation by intra-muscular injection; however the bio-availability of this is very variable.1 This audit aims to discover how well clinicians follow local guidance. We then compare this with practice of other centres in the Midlands.

Methods:
Using clinic notes and online blood results of all patients attending our parenteral vitamin D clinic, over 4 weeks. We looked at characteristics of patients and the reasons for starting parenteral vitamin D. Practice across the Midlands was compared using Survey Monkey® to gather data.

Results:

73% of patients tried on oral supplements first, but 50% of patients had no indication documented for being referred for vitamin D injections.

The last recorded vitamin D levels of patients attending the clinic showed 80% receiving injections had inadequate vitamin D levels.

44% of clinicians in the Midlands do not offer vitamin D injections in their trust, 75% of their GPs do not either.

Key messages:

☐ Many patients are being managed with vitamin D injections, is this still appropriate?

☐ Many patients would be suitable for a switch to oral supplementation (specific sub-groups of patients excluded.)

☐ A clear indication for parenteral injections should be documented

☐ There is considerable variability in practice across the Midlands.

References:
1. ‘Vitamin D and Bone Health: A Practical Clinical Guideline for Patient Management’ NOS Guidance, November 2013.

Dr Preya Rai (FY1), Dr Whallett (consultant).
A CASE OF ISOLATED CHOREA IN PRE-ANTI PHOSPHOLIPID ANTIBODY SYNDROME

T. T. Aye* 1, T. Potter1
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Background: There are few previous case reports of chorea associated with high titres of antiphospholipid (aPL) antibodies in the absence of antiphospholipid antibody syndrome. All reported patients have positive aCL antibodies but lupus-anticoagulant (LAC) was absent. We present a case of isolated chorea associated with high titres of aCL, B2GP1 and LAC in a 16-year-old female. She was initially treated with haloperidol and low dose aspirin. We also advised her to stop combined contraceptive pills and smoking. Her choreiform movements dramatically improved within 2-3 weeks. Although she was treated with low dose aspirin, some of previous studies did not support this as a primary thrombotic prophylaxis.

Objectives: To highlight the need for more data and further clarification on the natural history of patients with pre-APS and its evolution to APS, in order to implement the best preventive strategy.

Methods: A 16 year old girl, initially seen by neurologist, presented with a 4 week history of twitching movements and clumsiness of both arms. She also experienced slurring of speech, which was aggravated by stressful situations. She recently had sore throat and a long standing history of infrequent migraine with aura. She denied any other symptoms suggestive of APS and connective tissue disorders. She has no previous history of thrombosis and pregnancy morbidity. She has no family history of any movement disorders. She is a current smoker and takes the combined contraceptive pill. Physical examinations revealed choreiform movements, involving upper limbs, tongue and head; with normal heart sounds.

Results: ESR 48 mm/hr, CRP 3mg/l and Anti-streptolysin O titre 400 IU/ml. Throat swab for beta-haemolytic streptococci was negative. Strongly Positive aCL antibody with IgG 287 KU/l and IgM 29 KU/l; Positive LAC and B2GP1 antibody with negative ANA, dDNA. ANCA was negative and C3,C4 were normal. FBC, U&E, LFT, CK, TFT, bone profile and Caeruloplasmin were all normal. Hepatitis serology & HIV were all negative. A CXR and ECG were both normal. No MRI evidence of demyelination, ischemia or space occupying lesion.

Conclusions: Recognition of association between chorea and pre-APS is important. Management of chorea in pre-APS is a challenge to clinicians because the pathophysiology of aPL associated chorea in pre-APS is unclear, although recent articles suggest that chorea is likely the result of direct damage to the basal ganglia by aPL antibodies than occlusion of blood vessels. There is also contradictory evidence that whether aspirin is effective in primary prevention of thrombosis or remission of movement disorders in aPL associated chorea.

The challenge for clinicians in our patient is to decide how aggressively to treat patients with pre-APS in order to prevent thrombosis and other complications of APS. This case therefore highlights the need for more evidence on natural history of pre-APS and its evolution to APS in order to implement the best preventive strategy.

References:

Acknowledgement: Dr Tanya Potter.
Background
The Joint Royal Colleges of Physicians Training Board (JRCPTB) curriculum for core medical training in the UK specifies that trainees should be able to acquire the defined knowledge base of clinical science and common problems with applied competencies in the Musculoskeletal (MSK) system. The MRCP(UK) Part 2 Clinical Examination (Practical Assessment of Clinical Examination Skills - PACES) is designed to test the clinical knowledge and skills of trainee doctors who hope to enter higher specialist training (ST3). The exam sets rigorous standards to ensure that trainees are competent across a range of skills and ready to provide a high standard of care to patients. Station 5 is the Integrated Clinical Assessment station, designed to examine the candidates’ ability to address a clinical problem using a combination of focused history taking, examination, and communication skills with a patient in a way that reflects daily clinical practice.

However, musculoskeletal teaching is often lacking and a relatively neglected component of postgraduate learning, when compared to undergraduate teaching and allied medical specialties. This is compounded by a lack of exposure on the wards to patients with classic and suitable clinical signs of rheumatological disease. The authors conducted an innovative training event for junior medical trainees (core medical and foundation year 2 level (FY2) using patient volunteers to assist in learning about MSK conditions. The emphasis of the learning event was on examination technique for the station 5 of the MRCP(UK) Part 2 Clinical Examination (Practical Assessment of Clinical Examination Skills - PACES). The learning event was initially conducted in 2012 and repeated with the same format in 2016. This abstract reports an evaluation of this programme of learning.

Methods
An innovative training session involving patient volunteers was created in order to facilitate learning about rheumatology and musculoskeletal medicine in an interactive and non-threatening way. The initial session was piloted in 2012 with 10 attendees and repeated in the same format in 2016 with 7 attendees. This involved a half-day practical and mock style examination that ran in a timed carousel fashion with candidates being allocated 10 minutes for each case to perform a focused history and examination and construct a workable differential diagnosis and management plan. This included 2 minutes for questioning on various aspects of the case such as pathophysiology, aetiology, investigation etc. Candidates were invited to attend the teaching session if they were due to be sitting PACES or considering this in the near future. Patients were invited to attend by way of telephone communication after discussion with all local rheumatology consultants about suitable patients with clinical signs of disease. Both candidates and facilitators were provided with guidelines for each case. Patients were rewarded for their car parking payment but there was no other reimbursement or financial incentive for attending the session. Data was collected retrospectively after trainees had completed a paper-based questionnaire immediately after the session. Questions concerned the current opportunities for postgraduate teaching in MSK medicine, comparative levels of confidence before and after the training session, overall satisfaction of the session, and projections about how such a training event could be improved. Descriptive statistical data analysis was then performed.

Results
The initial session in February 2012 involved 10 attending junior medical trainees, ranging from FY2 to CT2 level SHOs (senior house officers). This resulted in a 100% rating of ‘excellent’ for both content and delivery, and included several comments expressing that this was “the best session of the CMT programme". The repeat session in February 2016 noted that 85.7% (6/7) of attendees rated the session content and delivery as ‘excellent’, and 14.3% (1/7) as ‘good’. Only 2 trainees in this cohort had received any formal postgraduate teaching on clinical aspects of the MSK system, with 1 having undergone a clinical attachment in rheumatology and the other also having received ward-based and lecture-based teaching. All trainees felt that the session was
worthwhile, met their expectations, and found the use of patient volunteers to be an effective part of this teaching session with respect to learning about MSK conditions. Moreover, attendees’ confidence levels in focused examination of the MSK system improved from a mean of 44% to 73%.

**Conclusion**
The MSK assessment forms part of the standard multi-system clerking of medical patients, and its competence and performance should be assessed by way of regular workplace based assessments linked to ones portfolio and the MRCP PACES examination. With the transition of rheumatology to an outpatient environment, this has brought with it challenges for the training of medical students and junior doctors. This initiative provides good support for the utilisation of patient volunteers and educators for the transfer of knowledge and skills in rheumatological assessment, and the authors propose that such a teaching session could become a standard part of the foundation or core medical training programme. It would be worth pursuing further the merits of such a teaching event with regards to actual marks received in the PACES station 5.
CASE REPORT – AN UNUSUAL PRESENTATION OF HAEMOCHROMATOSIS

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Age 60yr. Referred by Neurologist 1 to Neurologist 2. Genetic tests: 17p11.2 duplication, CMT1a, HNPP, MPZ, Connexin32 – all negative. Final diagnosis: Chronic inflammatory neuropathy (CIDP). Discharged

Age 69yr. Referred by rheumatologist. Painful wrists, and ankles, with swelling after walking. ANA 1:100, dsDNA 11. GP’s letter states: ‘His serum ferritin has also been raised, ? acute phase response.’


Investigations:
Ferritin 1088, (23-540), iron 33 (14-28), iron saturation 78% (20-55), ALT 60
EMG (tests of 2003, 2005, 2009 and 2015, ‘mixed sensory and motor primary demyelinating neuropathy. Sensory changes are worsening, motor changes show no significant changes.’
Genetic testing: HFE positive homozygous, C282Y, as found in 90% of genetic haemochromatosis.

Conclusion Hereditary haemochromatosis
No known family history, but 2 sons may undergo genetic testing.
Age 69yr Referred to haematology for further treatment
Could this be the cause of his peripheral neuropathy?:

Literature review
Neurological manifestations in hereditary haemochromatosis. Depression, dementia, peripheral neuropathy.

References:

Learning point: Elevated ferritin, if not accompanied by evidence of inflammation, think of haemochromatosis, and check serum iron, and iron saturation. If raised, perform genetic testing for HFE (C282Y).
RHEUMATOLOGY TRAINING IN INDIA – A REFLECTION AND COMPARISON WITH UNITED KINGDOM

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Background:
Indian subcontinent is one of the largest growing economies in the world. The burden of rheumatic musculoskeletal disease among Indian population is overwhelming. Clearly, there is a demand for specialist rheumatology work force in India. In this era of biologics and biosimilars, rheumatology is an attractive speciality among aspirant doctors. Our previous observational studies have explored and identified the strength and weakness in the rheumatology training programme in UK, Canada¹ and South Asian countries². We aim to explore the perception of rheumatology training among specialist and current trainees in India, and compare with UK training.

Objectives:
1. To explore the perception of rheumatology training in India.  
2. To identify the strength and weakness and the areas of improvement in training programme in India.

Methods:
This is an observational questionnaire based study. A pilot study was conducted with 32 questions during APLAR conference 2015 in India. The re-designed questionnaire was circulated electronically to rheumatology trainees across India through their training leads. Our survey was directed towards exploration of rheumatology curriculum including content, training and research opportunities and job prospect. The results were analysed through smart survey.

Results:
Total respondents were n=77, 16% (40/240 )from UK and 49% (37/75) from India. There were female predominance (55%) in UK and male predominance (71%) in India. Noted a wide variation in application process, structure and duration of training . In India, training duration is 6 years (3 yrs in GIM and 3 yrs in rheumatology), whereas it is 5 years for combined and 4 years for pure rheumatology in UK. The national rheumatology curriculum was designed by JRCPTB in UK, but multiple regional syllabus were followed in India with lack of adherence to national curriculum.

Trainees from both countries received weekly institutional teaching. UK trainees received structured supervision for joint injections, whereas Indian trainees received more training for crystal identification and immunological studies. Fewer cross speciality clinics were practised in India. Less exposure to MSK ultrasound skills was noted among the trainees, however the concept of MSK Ultrasound was clearly evolving in India.

Postgraduate research programmes and opportunities were available in UK, whereas Indian trainees need to complete a formal supervised dissertation project as a part of postgraduate qualification.

Mandatory training for generic skills were lacking in India. Training records were maintained electronically in UK and by paper log book in India. Although speciality exit exam was mandatory in both countries, the format was different including MCQ based in UK and theoretical and practical based in UK.

Conclusions:
1. This is the first study comparing rheumatology training between UK and India.  
2. Lack of structured Curriculum and homogenous rheumatology training exist in India.  
3. Harmonisation of rheumatology training in India is essential, matched with developed nations.

References:
TWO CASES OF ASPERGILLOSIS IN PATIENTS RECEIVING BIOLOGIC THERAPIES FOR RHEUMATOID ARTHRITIS

Author: LLD Tung, N Barkham, J Bateman

Abstract: The introduction of biologics has revolutionized the management of Rheumatoid Arthritis (RA), however, at the expense of rendering patients at risk for opportunistic infections. We are reporting two cases of pulmonary aspergillosis after adalimumab or rituximab infusions for RA. Pulmonary aspergillosis is a severe and potentially life-threatening complication in patients with immunodeficiency. Physicians must remain vigilant in diagnosing and aggressively treating opportunistic infection to avoid disseminated disease.

Case study 1: A 59 year-old female with longstanding history of seropositive RA and bronchiectasis was investigated for a new right upper lobe mass identified incidentally on a chest radiograph. Her RA was controlled by methotrexate and adalimumab for over 10 years. She was admitted electively for investigation of her lung mass. Adalimumab and methotrexate were discontinued at the time of her admission. Computed tomography scan confirmed a 47 mm right upper lobe mass with hilar lymphadenopathy. Ultrasound biopsy revealed necrotic tissue but was non-diagnostic. Positron emission tomography-computed tomography scan later confirmed a 55mm right upper lobe mass. She underwent right upper lobectomy for suspected malignancy. Biopsy revealed histological diagnosis of subacute invasive aspergillosis. She was commenced on Voriconazole and is currently under review in the National Aspergillosis Centre in Manchester.

Case study 2: A 70 year-old female with chronic RA and severe obstructive pulmonary disease had multiple hospital admissions for chest infection. She had been managed with gold, methotrexate, leflunomide, and prednisolone for her RA. Rituximab was later initiated to achieve remission. She was not eligible for other biologics due to history of malignancies. Upon treatment, she developed respiratory symptoms and panhypogammaglobulinaemia. A CT scan was arranged which showed a new 29mm x 23mm pleural-based right upper lobe lesion. Diagnostic biopsy demonstrated necrotizing pulmonary aspergillosis. Unfortunately, patient was intolerant to treatment. She remained off Rituximab, and disease modifying drugs and was monitored radiologically. She continued to develop recurrent chest infections requiring hospital admissions. Area of aspergillus infection at the right lung apex remained unchanged and showed no signs of spread to form a fungal pneumonia. She died of pulmonary sepsis secondary to pneumonia four years after treatment with rituximab. Her death was not related to her rheumatology disease or treatment.

Discussion: We report two cases on patients with chronic RA who developed aspergillosis as a complication during treatment with monoclonal antibodies. It is known that biologic therapy predisposes patients to atypical infection such as tuberculosis but fungal infection as a consequence of biologic therapy has received little attention in the literature to date. Although invasive aspergillosis is recognized as one of the main fungal infections in immunocompromised individuals, routine screening is not available unlike tuberculosis. Our case studies illustrated the diagnostic challenges aspergillosis faced by clinicians. Clinicians should have a high index of suspicion for opportunistic disease when assessing infections or even suspected malignancy in patients on biologics.
Background: Anecdotally we experienced a variation of individual practice with regard to corticosteroid (CS) and immunosuppressant (IS) use in giant cell arteritis (GCA) and polymyalgia rheumatica (PMR). We wanted to look at this variation and compare it to existing guidelines and published evidence using a simple survey of our departmental practice.

Method: Six Rheumatology Consultants and 2 Specialty Trainees at our unit were asked questions about the usual starting dose and tapering schedule of CS and criteria for introduction of IS therapy in uncomplicated GCA. Answers were compared with the BSR guidelines (2010) and EULAR recommendations (2008). Similarly participants were questioned on initial starting dose and tapering regime of CS in PMR and change of CS dose for flares with statements being compared to published guidelines (BSR 2009; EULAR 2015).

Results: All participants treat uncomplicated GCA with 40-60 mg of prednisolone complying with the BSR guidelines. The taper of CS shows a wide variation and only two of the 8 participants adopt the regime as suggested in BSR guidelines. All participants would start IS therapy if it was not possible to reduce CS dose rather than at disease presentation, but the criteria of IS introduction varied considerably (e.g. inability to reduce steroids to between less than 20-7.5 mg/day). Three respondents stated methotrexate and one azathioprine as the first choice of IS whereas others did not specify the type of IS therapy they would use.

For PMR, six participants use a CS regime consistent with the BSR guidelines (15 mg prednisolone OD for 4 weeks, then 12.5 mg OD for 4 weeks, followed by a reduction by 1mg every 4 – 8 weeks). One participant uses intra-muscular CS injections in addition to oral CS. In treating a relapse three participants would increase back to the previous CS dose that had offered good disease control as advised in BSR guidelines and others used different CS regimes.

Conclusion: The initial CS dose to treat uncomplicated GCA and PMR and the steroid taper in PMR is - in the majority - consistent with BSR and EULAR guidance. Variations exist within our unit for the criteria and timing of the introduction of IS in GCA and the taper of CS in GCA. According to BSR and EULAR guidance, meta-analysis evidence suggests a modest reduction of flare risk (35 %) and cumulative CS dose through the early use of MTX in GCA (Strength of recommendation: level B), but this is not universally adopted in our practice.
PYREXIA OF UNKNOWN ORIGIN WITHOUT HEADACHE- COULD THIS BE GCA?

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Introduction
We report an atypical and unusual presentation of a multisystem condition that intrigued medical specialist including respiratory and gastroenterology specialists.

Case summary
A 67 year gentleman (20 pack year ex-smoker) was initially referred to the respiratory clinic by the GP for suspected lung cancer as he had dry cough, fever, fatigue, reduced appetite & unintentional weight loss of 1/2 stone over 8 weeks. Patient denied shortness of breath or chest pain. He had raised inflammatory markers (ESR-132, crp-282). CT Chest was normal.

However, given his loose bowel motions, deranged liver function (ALT 194, ALP 354), Iron deficiency anaemia, he was referred to gastroenterology who ruled out any GI cause (normal CT abdo & Pelvis, negative hepatitis screen).

He was admitted with worsening symptoms and reported leg weakness & urinary retention and transient visual blurring (10 minutes). Echocardiogram, Blood & urine cultures, EBV, CMV, HIV, lymphoma screen, CT head, MRI Spine were all normal. A course of antibiotics did not impact on symptoms or high inflammatory markers. Ophthalmology review was normal and they did not find any evidence of GCA.

He was then referred to Rheumatology and on review; he denied headache, visual loss, jaw or tongue claudication but reported mild proximal girdle stiffness. There was no scalp tenderness & his temporal arteries were pulsatile and non-tender. ANA and ANCA, DNA, ENA, anti CCP and rheumatoid factor all were negative.

Large vessel vasculitis was suspected and this was confirmed on FDG-PET scan & temporal artery biopsy confirmed classic GCA histological features. He was started on oral prednisolone and had an excellent response with resolution of all of his symptoms and biochemical parameters.

Learning points
- GCA can very rarely present without any significant headache.
- GCA can occasionally present with neurological and respiratory symptoms. (1)
- GCA can cause significant abnormalities in LFT.
- FDG-PET scan can be extremely useful in diagnosing GCA with large vessel involvement.

References
A RARE CAUSE OF JOINT PAIN

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Introduction

Joint pain is a common manifestation of many conditions ranging from inflammatory arthritis as in rheumatoid arthritis to degenerative conditions such as osteoarthritis. Establishing an underlying cause is not always straightforward and can be challenging.

We report the case of a young female patient who presented with joint pain and found to have a rare underlying condition.

Case description

A 28-year-old Caucasian lady with no significant past medical or family history of any significant diseases presented to our rheumatology department with 10 years history of intermittent multiple joints pain mainly involving her knees, small joints of her hands and the wrist. During a typical episode, one joint will be affected at a time; the pain is usually of gradual onset occurring over few hours and lasting for up to three days associated with swelling and tenderness of the affected joint and later the appearance of skin rashes in the form of raised lumps, affecting her upper and lower extremities. Physical examination was generally unremarkable. Routine blood tests demonstrated raised CRP, normal ESR and negative rheumatoid factor and Anti-CCP (Table 1). Initial clinical suspicion was in favour of palindromic rheumatism. In addition to arthralgia in many joints, she kept complaining of long standing recurrent abdominal pain associated with vomiting. Her abdominal symptoms were severe and disabling enough to warrant a referral to a gastroenterologist. A series of investigations failed to establish a convincing diagnosis that could explain all of her symptoms. A CT scan of her abdomen revealed no significant abnormalities and an upper gastrointestinal endoscopy examination only found evidence of mild oesophagitis. This was treated with a high dose of proton pump inhibitor. Due to the lack of response to treatment, the gastroenterologist felt that her symptoms were due to functional rather than organic disorder. However, she was considered for cholecystectomy at a later stage. Whilst being assessed in our rheumatology department and based on her unusual presentation and continued symptoms, hereditary angioedema was suspected which was later confirmed during C1 Esterase inhibitor and complement levels assessment (Table 1). Consequently a diagnosis of hereditary angioedema was made. The patient is now being treated for this condition and cared for jointly by multidisciplinary team of a rheumatologist and an immunologist in order to provide her with evidence based treatment.

<table>
<thead>
<tr>
<th>Investigation</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1 Esterase inhibitor (0.21 - 0.39) g/L</td>
<td>0.0</td>
</tr>
<tr>
<td>ESR (Erythrocyte sedimentation rate 1-12 mm/l)</td>
<td>8</td>
</tr>
<tr>
<td>CRP (C-reactive protein 1-6 mg/l)</td>
<td>44</td>
</tr>
<tr>
<td>RF (Rheumatoid factor 0-20 IU/ml)</td>
<td>Negative</td>
</tr>
<tr>
<td>Complement C4 (0.14 - 0.54) g/L</td>
<td>0.02</td>
</tr>
<tr>
<td>Anti-CCP (anti-cyclic citrullinated protein antibody 0-7 U/ml)</td>
<td>1</td>
</tr>
</tbody>
</table>

Discussion

Hereditary angioedema (HAE) is a rare, life threatening autosomal dominant condition, results from congenital deficiency of C1 Esterase inhibitor enzyme, mainly affecting airway and abdominal viscera [1]. Abdominal angioedema attacks can lead to unnecessary surgical operations and delay in diagnosis, as well as to narcotic dependence due to severe pain. The associated dermatological manifestation can be disfiguring and disabling [2]. HAE is rarely reported to be associated with joint pain [3]. However, joint pain was the main symptom in our patient.
Learning points

- A rare condition presented with a common symptom, thus it needs to be considered as a possible differential diagnosis specially if associated with abdominal symptoms. HAE may mimic acute abdomen leading to unnecessary surgery.
- In addition to the above, this case highlights the importance of taking a detailed history and performing a thorough physical examination when assessing patients presenting with joint pain in order to reach an accurate diagnosis.

References:
ANTI-TYROID ARTHRITIS SYNDROME

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Rheumatologists are well aware of adverse effects of drugs commonly used within the speciality but rare effects of drugs used elsewhere can be a significant cause of morbidity. Anti-thyroid drugs (ATDs) are known to cause a variety of minor and major adverse reactions, ranging from rash to hepatic failure. While arthralgias can occur in up to 5% of patients on ATDs, true arthritis is relatively rare, estimated to occur in 1-2% of patients.

We report the case of an 81 year old woman, previously fit and well who was admitted with acute onset of unilateral wrist, hand joints and ankle swelling and pain and significantly raised inflammatory markers. She was initially treated as septic arthritis with inadequate response to antibiotics. The rheumatology team reviewed the patient and she was commenced on prednisolone 15 mg daily for a seronegative arthritis/reactive arthritis. Her response remained unusually slow to steroids and we sought an alternative explanation.

A family member questioned the significance of symptoms appearing soon after starting the anti-thyroid drug carbimazole a couple of weeks previously. Review of the literature shows that thionamide induced antithyroid arthritis syndrome is a rare but potentially serious side effect of this medication typically starting within 2 months of starting therapy. After discussion with endocrinology, we stopped carbimazole and substituted a low dose of atenolol. The patient subsequently improved although still has functional impairment of the affected wrist.

Anti-thyroid drugs are known to have a variety of adverse effects of significance in rheumatology. Thionamides (carbimazole, methimazole) and propylthiouracil are both associated with a rare life-threatening ANCA positive vasculitis (typically myeloperoxidase positive). Anti-thyroid arthritis syndrome is reported to be “a transient migratory polyarthritis that occurs within 2 months of starting thionamide treatment, and resolves within 4 weeks of stopping therapy.”1 Symptoms last as long as the inciting drug is used and in one remarkable example, a patient diagnosed with a progressive seronegative arthritis lasting over several years had resolution of symptoms once the thionamide drug was stopped. We will discuss the timeline of this and other examples from the literature and review the overall learning points from this case.