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Proceedings of the Association of North of England Physicians

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Abstracts of the meeting held on Wednesday 27th March 2019
Freeman Hospital

AUDIT OF STRESS CARDIAC MRI OUTCOMES

Dr A Brown, Dr D Ripley, Dr A Lee
Northumbria Healthcare Foundation Trust

We performed a retrospective audit of all stress cardiac MRI (CMR) performed from August 2016 to March 2017. All patients were followed for a minimum of 12 months (median 14.5 months). Care was in accordance with NICE guidelines. The CE-MARC (Clinical Evaluation of Magnetic Resonance Imaging in Coronary Heart Disease) trial was used for quality standards and to compare results. 91 stress CMRs were performed. 13 were excluded as they were performed on out-of-area patients. Of the remaining 78 patients, 34 (43%) had a positive CMR. 20/34 (59%) proceeded to angiogram. In 16/20 of these, CMR findings correlated with angiogram findings giving a positive predictive value (PPV) of 80%. The PPV in the CE-MARC trial was 77.2% (72.1-81.6). Of those who did not proceed to angiography, 8/14 had non-viable myocardium, 3 continued with medical management and, in 2 no reason was given. 3/34 (8.8%) of patients with a positive CMR had a major adverse cardiovascular event (MACE) during follow-up. Three of the 44 patients with a negative CMR had an angiogram. All were negative. There was a MACE in 1/44 (2.3%) of these CMR and angiogram -negative patients during follow-up.
Conclusion Compared to angiography, CMR had a similar positive predictive value as that found in the CE-MARC trial. MACE rates at 12 months were also similar to those in the CE-MARC trial. The wider use of CMR could aid investigation and management of patients with stable angina however, our study was limited by the small number of CMR negative patients proceeding to angiography.

NECK PAIN AND ACUTE KIDNEY INJURY

Gemma Thompson, Professor John Sayer
Freeman Hospital

A 46 year old gentleman presented with neck pain, and a rash on legs and arms. He had a background of alcohol excess and a known ventricular septal defect (VSD). His blood tests revealed an acute kidney injury (AKI class 3), normocytic anaemia, deranged LFTs and a raised CRP. Urine dip was positive for blood and protein, ANA, ANCA, and hepatitis/HIV were negative. Renal ultrasound showed normal sized kidneys. Blood cultures grew Staphylococcus parasanguinis. An MRI neck demonstrated C5/6 pyogenic discitis. Echocardiogram showed a VSD and a CT chest showed septic emboli with pulmonary abscesses. The likely source of the infection was thought to be poor dentition. The AKI resolved and he received continued treatment for his VSD and endocarditis.
Conclusion: We describe likely post-infectious glomerulonephritis secondary to infection with Staphylococcus parasanguinis a species of the viridans group, part of the oral native flora associated with native valve endocarditis, dental plaque formation and low grade bacteraemia. Discitis secondary to haematogenous spread from a focus of infection should be suspected in cases of neck pain with systemic illness.

AN AUDIT OF IRON DEFICIENCY AND ITS TREATMENT IN PATIENTS WITH LEFT VENTRICULAR SYSTOLIC DYSFUNCTION (LVSD)

Heather MacFarlane), Katharine Nelson
Queen Elizabeth Hospital (QEH), Gateshead

Studies have shown that treatment of iron deficiency in LVSD improves patient outcomes. The European Society of Cardiology recommends that patients with LVSD should have iron status assessed and, if deficient, receive intravenous iron replacement. Iron replacement is indicated if ferritin levels are <100ug/L, or between 100-299ug/L if transferrin saturation (sTFR) is less than 20%. We retrospectively audited our treatment of inpatients with a diagnosis of LVSD between February- April 2018. Patients were excluded if ejection fraction was >40% or they were admitted for <24hours or had repeat admissions in the same cycle. Following departmental education, a re-audit was completed between August– October. In the first cycle, 34 patients were audited. 62% of patients had ferritin measured within the past year. Of these, 38% had ferritin levels <100ug/L and 24% at 100-299ug/L, though none of the latter had sTFR measured. This equates to 62% compliance when screening for iron deficiency. 25% patients who were iron deficient received replacement therapy. Post intervention, 28 patients were audited. 64% of patients had ferritin measured. Of these, 61% had ferritin levels <100ug/L and 33% at 100-299ug/L, though 80% of the latter had sTFR measured. This equates to 71% compliance when screening for iron deficiency. 43% patients who were iron deficient received replacement treatment.
Conclusion: This audit cycle has shown improvement

in both the assessment and treatment of iron deficiency in LVSD through departmental education.

DO HEALTHCARE WORKERS PRESCRIBE OXYGEN SAFELY?

Emma Johnston, Philip Jopson
Sunderland Royal Hospital

The British Thoracic Society (BTS) oxygen guideline state that utilised oxygen must be prescribed and that patients should have oxygen target saturations of 94-98% unless deemed at risk of hypercapnia. Those at risk of retention should have initial targets of 88-92% and have an arterial blood gas (ABG) measurement. Our retrospective study showed that 26% of patients on oxygen did not have it prescribed and only 8% had a complete and correct prescription. As expected, the majority (80%) of patients who require oxygen were potential CO2 retainers. Of the 30 patients who needed an ABG to determine correct saturation targets, only 47% received one; 23% had a venous blood gas (VBG), leaving 35% of potential hypercapnic patients without knowledge of their retention status and without prescription. In the 50 patients randomly studied there was 1 adverse event due to over oxygenating a previous CO2 retainer and incorrectly prescribing their target saturations.

Conclusion: It is evident that prescribers are not vigilant at prescribing oxygen and are not identifying or investigating potential CO2 retainers.

MORE THAN JUST A CO-INCIDENCE: HYPONATRAEMIA AS A MANIFESTATION OF PROFOUND HYPOTHYROIDISM

Matthew Morris, Ahmed Al-Sharefi, David Bishop and Ashwin Joshi
Sunderland NHS foundation trust

Despite an unclear mechanism, hypothyroidism and hyponatraemia are known to be associated. We followed a patient presenting to hospital with significant hyponatraemia (Na^+ 125mmol/L) and co-existing severe hypothyroidism (TSH 85mIU/L, free T4 <3.0pmol/L and undetectable free T3 levels). Hypothyroidism was corrected with levothyroxine replacement and sodium levels gradually returned to normal.

Conclusion: Hyponatraemia may be the first presenting sign of profound hypothyroidism and serum TSH should be measured in patients presenting with hyponatraemia.

RECENT MHRA GUIDANCE REGARDING USE OF SODIUM VALPROATE IN WOMEN OF CHILD BEARING AGE

Dimple Prabhuswamy, David Ledingham
James Cook University Hospital

The MHRA (Medicines and healthcare products regulatory agency) have issued guidance stating that women of childbearing age on sodium valproate should be aware of the risks of sodium valproate on foetal growth. Patients who remain on sodium valproate should receive highly effective contraception and should sign an annual risk acknowledgement form. We evaluated our current practise against this standard reviewing case notes and clinic letters of all patients in our epilepsy service over the past three years. 81 patients were identified on sodium valproate, of whom 58 had child bearing potential. 55 were aware of the risks of sodium valproate on foetal growth. No written documentation was found for the remaining 3 patients .Out of 55 patients only 14 were on effective contraception (injectable/IUCD). The Majority were on no contraception. Reasons for this were severe learning difficulty, not sexually active, coming off sodium valproate and failure to heed advice or attend clinics. Only 33 patients had signed a risk acknowledgement form.

CONCLUSIONS: We are doing well with regards to providing information about sodium valproate affecting foetal growth but not so well in areas of effective contraception and annual risk acknowlgement forms.

PALLIATIVE CARE IN THE EMERGENCY DEPARTMENT: CAN MORE BE DONE TO PREVENT ACUTE HOSPITAL ADMISSIONS?

Dr Prichard
Northumbria Healthcare NHS trust

For patients approaching the end of life, a busy Emergency Department (ED) or acute hospital ward is

an unsuitable environment for their needs. We analysed retrospectively 131 patients with a known palliative diagnosis who were admitted to hospital via the ED in January 2018. 3% of all admissions via the ED were patients with known palliative diagnoses. On arrival in the ED, less than 1 in 4 were known to the community palliative care team. 35% had a DNACPR form. 67% attended outside normal working hours. For 83% it was felt that ED attendance could have been avoided if more community support was in place or if a more appropriate service had been contacted. 60% of patients died in hospital during their admission. Of the 53 patients who survived this admission and were discharged, 83% had a DNACPR form in place, 40% had an Emergency Healthcare Plan, and 38% of those not known to the community palliative care team were referred on discharge. The majority (84%) of patients with an existing palliative diagnosis who were admitted via the ED did so in the last 100 days of life.
Conclusion: This study highlights the importance of implementing advanced care planning both in and out of hospital, and prioritising time with patients to discuss values, anxieties, anticipated emergencies, resuscitation and death.

A REVIEW OF PLEURAL INFECTION

Kevin Conroy, Avinash Aujayeb
Northumbria NHS Trust

We retrospectively analysed all patients with pleural infections between Dec 2016 and Dec 2017. There were 36 patients all admitted from the community. Average age was 64.5 yrs. 19 were >65yrs. 24 had consolidation on X-ray. Co-morbidities were: malignancy (7), alcohol excess (5), mental health (5), current smoker (9), ex-smoker (16). Drug use was recorded in 1. 8 had an HIV test. Ultrasound was documented in 15 patients (commonest comment was multi-loculated fluid (11). Other recorded findings included: 'small or moderate size 'and 'echogenic'). 28 samples available: Pus or turbid (13), blood stained (5), serous (6), no comment (4). pH result available in 17, <7.2 (8); LDH reported in 14. 11 (39%) had a positive fluid culture of which 2 grew Strep pneumoniae, 1 strep Intermedius, 1 actinomycosis turicensis and haemophilus parainfluenzae (in intravenous drug user), 2 staph aureus (patients with indwelling pleural catheters). Other organisms were strep dysgylactiae, strep anginosus and mixed anaerobes. 26 had chest drain inserted with 10 receiving intrapleural lysis. 9 received antibiotics only. 35 patients received piperacillin-tazobactam or co-amoxiclav initially. Clindamycin was given in 60% of cases (including patients with fully penicillin sensitive organisms). Antibiotic duration was 2 to 8 weeks. Mean length of stay was 9 weeks (1 – 56). All survived to discharge on first admission but 3 (9%) died within 30 days and 3 more within 6 months. 8 were readmitted within 38 days- 75% due to infection, 50% staying for 4 weeks.
Conclusions: Our data is in-line with recorded epidemiology. We need to improve checking HIV status, ultrasound reporting, sending for biochemical and microbiological analysis and stopping reliance on clindamycin.

MALIGNANT ASCITES MANAGEMENT

L Armstrong, H Hall, H, F Dewhurst, K Frew, S Robinson, A Aujayeb
Northumbria NHS Trust

We evaluated 12 patients treated with indwelling peritoneal catheters (IPC) for malignant ascites due to upper gastrointestinal, pancreatic, prostate, breast or ovarian cancer. There was improvement in symptom control, particularly pain, abdominal distension and dyspnea. One patient had pain post procedure requiring overnight admission. Paracenteses reduced from average of 3.4 procedures (range 1-6) before to 0.63 (range 0-2) after IPC. Previous mean number of days to death was 40 days. Re-audit group had an average number of days to death of 12. Patient and relative reviews were very favourable. IPCs result in a cost saving of £1051 per patient. In addition, physician training in abdominal ultrasound undertaken to limit disruption for patients and avoid departmental scans saved £2623 over five months.

Conclusions and Further work: A safe indwelling peritoneal catheter service is provided with cost savings and improvement in quality of life.

Association Business

Date of next meeting: Wednesday 10th July 2019 6.00 pm. Refreshments from 5:15pm) Freeman Hospital.

This takes place after the GIM teaching at the Postgraduate centre Freeman Hospital. There will be refreshments before, and a free buffet meal served half way through the meeting to allow posters to be inspected. Please do come and encourage your colleagues to come/stay after the GIM teaching.

The meeting is **approved for 3 hours CME.** Abstracts for poster or oral presentations from consultants, trainees and medical students are all welcome. Presentations should reflect the full range of clinical medical practice including research, clinical series, audit and case reports. Please submit by email (around 250 words including a short conclusion) to the secretary Colin Doig colin.doig@northumbria-healthcare.nhs.uk.

The Margaret Dewar prize for the best junior doctor or medical student's presentation will be awarded for the best oral presentation of the year (£150), runner-up (£100) and best poster (£50).

Why not enter your research for the Hewan Dewar prize (£500) awarded annually for the best research paper submitted by a junior doctor or medical student. Details available from the secretary.

Congratulations to Ken Baker the worthy winner of the 2019 Hewan Dewar prize who was presented with his cheque at the March meeting for his work on biomarkers of remission in rheumatoid arthritis.

Had you considered joining the committee? Our meetings with refreshments take place 3 times a year. We are particularly seeking enthusiastic representatives from James Cook, Northumbria and Carlisle. If interested, please contact Colin Doig colin.doig@northumbria-healthcare.nhs.uk.
Also please e-mail the names of any new consultant colleagues or your own name if you are not already on the mailing list to the secretary.

We look forward to seeing you at the Freeman Postgraduate Centre on Wednesday 10th July 2019