

Abstracts

Ulster Society of Internal Medicine 93rd (Spring) Meeting Friday 15th May 2015

Antrim Area Hospital



PROGRAMME:

- 2.00 pm **Prevalence and outcome of STeMI equivalent ECGs in the primary percutaneous intervention turn-down cohort.** McCarrick L, Tweedie J, Linden K, Devlin P, McGeough M, Herity N. Eastern Heart Attack Centre, RVH.
- 2.15 pm **Endoscopic Duodenal Stent Placement in Adults with Cancer.**
JJ McGoran, PSJ Hall, RM Mitchell, I Mainie.
Department of Gastroenterology, Belfast City Hospital, Belfast HSC Trust.
- 2.30 pm **Two cases of SLE complicated by macrophage activation syndrome.**
C Masih, S McDonald, N Liggett. Department of Rheumatology, Craigavon Area Hospital, Craigavon, N. Ireland
- 2.45 pm **Guest Lecture: "Diabetes arising from chronic pancreatitis: current and future strategies for beta cell preservation."** Dr. Philip Johnston, Consultant Endocrinologist, Belfast HSC Trust.
- 3.15 pm **Afternoon Tea and Poster Viewing**
Refreshments sponsored by **Merck, Sharp and Dohme.**
- Poster 1 **A case of 'crazy paving' and treatment pitfalls.**
I Moore, N Chapman, L Polley, R Convery.
Craigavon Area Hospital, Southern Health and Social Care Trust.
- Poster 2 **Bosentan-induced cholestatic hepatitis in a patient with HIV-related pulmonary hypertension. Where do we go from here?** M Monaghan¹, M Riley², L Jackson¹, CM Wilson¹. 1. Cardiology, RVH 2. Respiratory Medicine, BCH
- Poster 3 **Acute cardiomyopathy due to Systemic Lupus Erythematosus; A case report and discussion.** A.Gray, J. Burns, V. Moohan. Depts of Cardiology/
- Rheumatology, Antrim Area Hospital, Northern HSC Trust.
- 3.40 pm **Grand Rounds: Cases from Antrim Area Hospital.**
Facilitator: Dr Camille Harron, Consultant Renal Physician, Northern HSC Trust.
- 4.10 pm **Managing an unplanned pregnancy in end stage renal failure: a stormy road ahead.** D Keenan, G Shivashankar, S Bolton.
Renal Unit, Altnagelvin Area Hospital, Londonderry. Western HSC Trust.
- 4.25 pm **Langerhans cell histiocytosis: Two cases reports and treatment pathways.** C Hagan, D McNicholl, N Chapman, RP Convery. Department of Respiratory Medicine, Craigavon Area Hospital, Craigavon, UK
- 4.40 pm **Guest Lecture: "Investigation and management of stroke in the younger patient."** Dr Mark McCarron, Consultant Neurologist, Altnagelvin Hospital, Western HSC Trust.
- 5.10 pm Presentation of prize for the best abstract.

2PM ORAL

PREVALENCE AND OUTCOME OF ST ELEVATION MYOCARDIAL INFARCTION EQUIVALENT ELECTROCARDIOGRAMS IN THE PRIMARY PERCUTANEOUS INTERVENTION TURNDOWN COHORT.

McCarrick L, Tweedie J, Linden K, Devlin P, McGeough M, Herity N.

Eastern Heart Attack Centre, Royal Victoria Hospital

Since 30/09/13, the Belfast Trust has provided a PPCI service. ECG's of suspected STEMI patients are faxed to a central hub with patients being accepted or declined for PPCI utilising a regionally-agreed protocol.

STEMI equivalent ECG are those without classical ECG changes but with an acutely occluded artery;

1. Isolated Posterior MI
2. LBBB with Sgarbossa criteria
3. ST elevation in lead aVR

We evaluated the frequency and outcomes of STEMI equivalent ECG in a cohort of patients declined for PPCI.

Criteria for activation of pathway is chest pain less than twelve hours plus either contiguous ST elevation of ≥ 2 mm in chest leads or ≥ 1 mm ST elevation in limb leads. Data was collected retrospectively from 30/09/2013 to 31/03/14. Overall 557 patients were declined. 25 (4.4%) of patients within this cohort were found to have a STEMI equivalent ECG. The most common finding was an isolated posterior MI (Table 1).

TABLE 1.

Frequency and angiographic findings of patients presenting with STEMI equivalent ECG

| | Patients with STEMI equivalent ECG | Proceeding to coronary angiogram | Culprit lesion at angiogram (%) |
|--------------|------------------------------------|----------------------------------|---------------------------------|
| Posterior MI | 14 | 14 | 100 |
| STeAVR | 7 | 6 | 100 |
| LBBB | 4 | 3 | 100 |

STEMI equivalent ECG are currently not incorporated within the PPCI activation pathway. Awareness and prompt recognition should prompt urgent angiography. Six month mortality within this group was 28% compared with 12% overall.

215PM ORAL

ENDOSCOPIC DUODENAL STENT PLACEMENT IN ADULTS WITH CANCER

JJ McGoran, PSJ Hall, RM Mitchell, I Mainie

Department of Gastroenterology, Belfast City Hospital, Belfast HSC Trust

Duodenal stenting has been used as an effective palliative treatment of gastric outlet obstruction (GOO).¹ A retrospective assessment of patients with duodenal stent placement since 2012 in Belfast City Hospital was carried out. We identified eighteen patients who had duodenal stenting from January 2012 to March 2015.

All patients had cancer, with gastric carcinoma comprising half of cases (9/18), four patients with pancreatic cancer, two with gallbladder carcinoma and one patient each with oesophageal, renal and cervical malignancies. Complications occurred in 16.7 % (3/18) of patients, a figure which is comparable with current literature.² These complications included gastroduodenal perforation (1), bleeding (1) and aspiration pneumonia (1). Only the patient with the post-

procedure gastrointestinal bleed died within 30 days (cause of death not secondary to the stent insertion). Two other patients died within 30 days, secondary to infection. The hospital reporting system was used to give details regarding postoperative care. Appropriate and comprehensive advice, which involved fasting for four hours and dietary advice, was given for 66.7 % (12/18) of patients.

This study shows that duodenal stent placement is an effective palliative treatment of GOO, with involvement of the whole multidisciplinary team. Suggestions for development include centralising the service in a high volume unit and standardising postoperative advice.

1. Boskoski I; Tringali A; Familiari P; Mutignani M; Costamagna G. Self-expandable metallic stents for malignant gastric outlet obstruction. [Review] *Advances in Therapy*. **27(10)**:691-703, 2010 Oct.
2. Maire, F; Sauvanet, A. Palliation of biliary and duodenal obstruction in patients with unresectable pancreatic cancer: endoscopy or surgery? [Review] *Journal of visceral surgery*. **150(3 Suppl)**:S27-31, 2013 Jun.

230PM ORAL

TWO CASES OF SLE COMPLICATED BY MACROPHAGE ACTIVATION SYNDROME

C Masih, S McDonald, N Liggett

Department of Rheumatology, Craigavon Area Hospital, Craigavon, N. Ireland

Case 1. A 22year old man with a 6 month history of leucopaenia was admitted with pyrexia, rigors and lymphadenopathy. Antinuclear antibodies were strongly positive and a diagnosis of SLE was made. Streptococcus pneumoniae, RSV and EBV were isolated and the patient deteriorated with chest sepsis and required ICU admission. With ongoing pyrexia, rash and cytopenia macrophage activation syndrome was considered. Ferritin of 35000 and bone marrow biopsy showing haemophagocytosis were supportive. An initial response to pulsed methylprednisolone was not sustained and he required treatment with rituximab and responded well. He was maintained on a reducing dose of prednisolone and hydroxychloroquine and further treatment with rituximab is planned.

Case 2. A 28year old man with a diagnosis of SLE from Lithuania was admitted with pericarditis. He had been off all treatment since arriving in UK six years ago. Shortly after admission he had two seizures associated with atrial fibrillation with fast ventricular response and required admission to ICU. He developed chest sepsis with Klebsiella and Staphylococcus aureus, as well as partial bilateral ulnar nerve palsy. Despite intensive antimicrobial therapy and reducing doses of steroid he remained pyrexia, and had paranoid ideation. When his haemoglobin fell to 65mg/dL and a rash emerged a diagnosis of macrophage activation syndrome was considered. Ferritin was raised at 8049 though bone marrow biopsy was non-diagnostic. He responded to pulsed methylprednisolone and immunoglobulin therapy and maintenance is planned with oral prednisolone and hydroxychloroquine.

410PM ORAL**MANAGING AN UNPLANNED PREGNANCY IN END STAGE RENAL FAILURE: A STORMY ROAD AHEAD**

D Keenan, G Shivashankar, S Bolton

Renal Unit, Altnagelvin Area Hospital, Londonderry. Western HSC Trust.

This case report reviews some of the challenges presented by pregnancy in end-stage renal failure. The patient, a 29 year old female with CKD secondary to diabetic nephropathy had been progressing rapidly towards dialysis and transplantation. She had poor glycaemic control despite the use of an insulin pump and uncontrolled hypertension on four antihypertensive agents.

In 2014, her urine pregnancy test was positive and a transvaginal ultrasound confirmed an intrauterine pregnancy. This unplanned pregnancy was high risk both to her own health and that of the foetus. There was a high risk of miscarriage due to her diabetes, hypertension and CKD. There were also concerns about her diabetic retinopathy worsening as well as requiring intensive dialysis and impact on transplant status. At the time of conception, she was pre-dialysis (GFR 10mls/min).

Significant adaptations were needed to the dialysis programme to account for acidosis, hypophosphataemia and minimization of fluid shifts, all of which are bad for foetal development. With a well-coordinated multi-disciplinary approach, we were able to successfully manage all her risk factors during pregnancy, leading to a favourable obstetric outcome.

Managing pregnancy in dialysis patients is challenging, not least because it is a rare event. In 1984 the European Dialysis and Transplant Association recorded a surviving infant in pregnant dialysis patients being 22.9%¹. Recently though; this is higher with centres reporting a success rate greater than 70%². We will explore some of the challenges that arise when managing the pregnant dialysis patient.

1. Successful pregnancies in women treated by dialysis and kidney transplantation: Report from the Registration Committee of the European Dialysis and Transplant Association. *Br J Obstet Gynaecol* 1980; **87**:839-835
2. Romao JE Jr, Luders C, Kahhale S, Pascoal IL, Abensur H, Sabbage E, Zugaib M, Mar-condes M: *Pregnancy in women on chronic dialysis. Nephron* 1998; **78**: 416-422

425PM ORAL**LANGERHANS CELL HISTIOCYTOSIS: TWO CASES REPORTS AND TREATMENT PATHWAYS.**

C Hagan, D NcNicholl, N Chapman, RP Convery.

Department of Respiratory Medicine, Craigavon Area Hospital, Craigavon, UK

Pulmonary Langerhans cell Histiocytosis (LCH) is a rare Interstitial Lung Disease characterised by infiltration of

the lung with histiocytes. Studies suggest an incidence of 2 per million/population and a strong association with cigarette smoking. Clinical features comprise exertional breathlessness, cough and systemic symptoms with an increased risk of pneumothorax. High Resolution Computed Tomography (HRCT) features include diffuse centrilobular nodules and widespread cystic lesions which typically spare the costophrenic angles. Diagnosis is usually based on a combination of clinical and radiological findings. Confirmation by histology from an open lung biopsy demonstrates abnormal proliferation of Langerhans cells, characterised by the presence of Birbeck granules on electron microscopy.

We report the presentation and treatment pathway up of two cases of LCH.

Case 1: 59 year old male smoker presented with dyspnoea and cough. HRCT showed widespread nodular opacities, bilateral cavities and widespread pulmonary infiltrates. Management included smoking cessation and a combination of prednisolone and azathioprine resulting in clinical and radiological improvement.

Case 2: 46 year old male ex-smoker presented with dyspnoea and wheeze following a recent admission with pneumonia. HRCT demonstrated multiple cysts with basal sparing. He was commenced on steroids; resulting in symptomatic and physiological improvement.

Conclusion: We describe the use of immunosuppressant therapy in a rare interstitial lung disease with the view to preventing disease progression and the requirement for lung transplantation.

POSTER 1**A CASE OF 'CRAZY PAVING' AND TREATMENT PITFALLS**

I Moore, N Chapman, L Polley, R Convery

Craigavon Area Hospital, Southern Health and Social Care Trust

A 49-year-old male with a history of significant alcohol misuse presents with progressive cough and dyspnoea over a 6 month period. There had been little improvement with antibiotic or inhaler therapy. He is a life-long smoker with no previous respiratory history. Routine CXR identified marked alveolar shadowing over both midzones with relative apical and basal sparing. After assessment at respiratory clinic he proceeded to CT Chest which demonstrated a 'crazy paving' pattern of interstitial infiltrate with no significant adenopathy or mass lesion. Subsequent bronchoscopy was unremarkable and culture negative. After multi-disciplinary discussion this patient proceeded with surgical lung biopsy. A histological diagnosis of pulmonary alveolar proteinosis was confirmed.

Pulmonary alveolar proteinosis (PAP) is a rare condition with an estimated incidence of 0.2 per million of the population¹. The condition results in the abnormal accumulation of

surfactant within the alveoli. The majority of cases are felt to be autoimmune in nature with granulocyte macrophage-colony stimulating factor (GM-CSF) proving to be a key cytokine in this pathophysiology². Total lung lavage is currently gold standard treatment.

Attempts to arrange the recommended treatment of total lung lavage in this case had been initially hampered due to social circumstance. In the last few months however due to a general deterioration in his symptoms and pulmonary function extra efforts have been made to facilitate treatment with an elective admission at the end of April.

1. Borie et al. Pulmonary alveolar proteinosis, *Eur Respir Rev*, 2011; **20**:98-107
2. Mani et al. Exogenous Granulocyte-Macrophage Colony-Stimulating factor administration for Pulmonary Alveolar Proteinosis, *Am J Respir Crit Care Med*, 2000; **161**:1143-1148

POSTER 2

A CASE OF BOSENTAN-INDUCED CHOLESTATIC HEPATITIS IN A PATIENT WITH HUMAN IMMUNODEFICIENCY VIRUS-RELATED PULMONARY ARTERIAL HYPERTENSION (HIV-PAH).

WHERE DO WE GO FROM HERE?

M Monaghan¹, M Riley², L Jackson¹, CM Wilson¹.

Cardiology, Royal Victoria Hospital, Respiratory Medicine, Belfast City Hospital, Belfast Health & Social Care Trust

HIV-PAH is a rare life threatening complication of HIV infection, occurring in approximately 1 out of every 200 HIV-infected patients (0.5%)¹.

Bosentan is an oral nonselective endothelin-1 receptor antagonist (ERAs) used for the treatment of HIV-PAH.

Patient A was diagnosed with both HIV and associated PAH in 2004. At this time she was WHO FC IV with a mean PAP of 51 mmHg (78/35) and CI 2.35 by right heart catheterisation. Echocardiogram showed a moderately dilated right ventricle (EDD 37mm) with moderate impairment of right ventricular systolic function.

She was commenced on Bosentan in addition to Warfarin and anti-retroviral medication. Her WHO FC improved to class I-II with a concomitant improvement in RV dimensions and function and normal NT-pro BNP.

In June 2014 she had significant derangement of her LFTs (AST

198, GGT 1353, ALT 239, ALP 448). Hep B, C, Copper, alpha-1-antitrypsin and AFP returned as normal. MRCP showed normal bile ducts and no cholangiopathy. CT and MRI liver were normal. Bosentan was withdrawn and liver function normalised.

The patient reported a decline in functional capacity with a measured rise in NT-pro BNP. Catheterisation showed a mean

PAP of 36 mmHg (67/22) and CI 2.86. She was commenced on the phosphodiesterase type-5 inhibitor, Sildenafil 25 mg TID.

While transaminitis is a recognised side-effect of Bosentan a cholestatic picture is less recognised. There is limited information available on the safety and efficacy of Sildenafil in HIV-PAH.

This case illustrates the importance of on-going monitoring of LFT's in patients on ERA's and that aggressive treatment of PAH in the setting of HIV infection may have a good prognosis.

1. Sitbon O, Lascoux-Combe C, Delfraissy JF, Yeni PG, Raffi F, De Zuttere D, Gressin V, Clerson P, Sereni D, Simonneau G Prevalence of HIV-related pulmonary arterial hypertension in the current antiretroviral therapy era. *Am J Respir Crit Care Med*. 2008; **177**(1):108.

POSTER 3

ACUTE CARDIOMYOPATHY DUE TO SYSTEMIC LUPUS ERYTHEMATOSUS; A CASE REPORT AND DISCUSSION.

A.Gray, J. Burns, V. Moohan

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Systemic Lupus Erythematosus is a multisystem autoimmune disease with cardiac involvement being the second most common manifestation after renal disease. Whilst valvular disease, coronary artery disease and pericardial disease are common cardiac manifestations, lupus cardiomyopathy is an uncommon but severe complication that can lead to acute severe bi-ventricular failure. Treatment considerations are predominantly based on evidence from case reports with a lack of consensus opinion on optimal management.

Here we present the case of a 35 year old male who initially presented to the out-patient department with symptoms, clinical signs and serology in keeping with systemic lupus erythematosus. Following initial treatment his symptoms continued to progress and he was admitted to hospital for further treatment and investigation. Despite appropriate management his condition deteriorated further requiring admission to the intensive care unit for ventilatory and inotropic support. Chest imaging indicated a pneumonitis and additionally echocardiography revealed severe impairment of left and right ventricular function. A diagnosis of acute cardiomyopathy due to lupus myocarditis was suspected and he was commenced on high dose intravenous steroids and immunoglobulin. Follow up imaging at day 5 and 12 revealed significant improvement in cardiac function.

The case concludes with a discussion of the presumed aetiology of lupus myocarditis, investigation, differential diagnosis, findings from previous case reports and suggested treatment options.