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Abstracts

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BAPIOAC18-01

Early Outcomes Of 19 Gy Single Fraction High Dose Rate Brachytherapy As Monotherapy For Localised Prostate Cancer

Amarnath Challapalli, Susan Masson, Pauline Humphrey, Petra Jacobs, Andrew Brown, Amit Bahl
Bristol Cancer Institute, Bristol, UK
amarnath.challapalli@gmail.com

Key words: prostate cancer, brachytherapy, monotherapy

Background

High dose rate (HDR) brachytherapy is an attractive treatment option for localised prostate cancer (CaP) exploiting the radiobiological advantage of using a high dose/fraction. We report the toxicity and early clinical outcomes of HDR monotherapy for low to intermediate-risk CaP.

Methods

Eighty-five patients with low to intermediate-risk CaP were treated from October-2013 to February-2017. Patients had catheters placed transperineally under spinal anaesthesia, using trans-rectal ultrasound guidance. Dose delivered was 19Gy/single fraction prescribed to the prostate ± seminal vesicles base, with an isotropic 3mm margin. Toxicity was assessed using common toxicity criteria.

Results

A range of volumes were implanted (20–120 cc, median: 35), using a median of 17 needles (range:13–20). The median age was 71yrs (range:59-82yrs). Satisfactory implants were achieved in patients with volumes>60cc, by excluding pubic arch interference on the pre-implant MRI pelvis. All patients were discharged home within 24hours, with 10 patients (12%) requiring re-catheterisation. The median (range) follow-up was 16 (1-42) months. Of the 85 patients, 22% (19/85) had Gleason score 6. The incidence of acute and chronic genito-urinary (GU) toxicity was Gr2: 22%&1.2%, Gr3: 17%&3.5%, respectively.

Acute and chronic grade 2 gastro-intestinal (GI) toxicity was seen in 2%, but none had chronic Gr3 GI toxicity. PSA bounce was seen in 22% (12/55) predominantly between 9-18months post brachytherapy. Four patients experienced a biochemical failure, around 12-18months post treatment, giving a cumulative incidence estimate of 4.7% at 1 year. Out of these 4, 2 had salvage prostatectomy and 2 developed metastatic disease. Two patients developed metastatic rectal carcinoma 1.5-2yrs post brachytherapy.

Conclusion

Our initial experience with HDR monotherapy confirms this to be safe, with favourable and promising preliminary biochemical control rates. It is possible to implant volumes higher than 60cc, if adequate measures are taken.

BAPIOAC18-02

Affordable Healthcare Through Telephonic Consultations

Andrew Mullett, Daphin Fernandez
Bristol Royal Hospital For Children
a.mullett@nhs.net

Keywords: telephonic consultation, affordable healthcare, financial savings, time savings.

Background

Paediatric work load is recognised to be growing, and patients increasingly desire consultation with senior clinicians in a timely fashion. The current face-to-face outpatient consultations system is unable to solely provide for this increased need and poses difficulties for families; changing work commitments, childcare arrangements and travelling distances. Therefore, it has become increasingly commonplace to offer telephone consultations.

Aims

- to quantify telephonic consultations by one consultant, over one year.
- to estimate how often these telephonic consultations prevented the need for face-to-face consultation or admission.

Methods

Summary records of telephonic consultations from June 2016 - may 2017 were analysed; where the summary data was insufficient, letters from the consultation were consulted. Much of the data analysis was speculative, such as 'has this consultation prevented a face-to-face consultation?' and was the informed opinion of the data analyst.

Results

Volume of work

- 96 telephonic consultations conducted this is the equivalent of approximately 12 eight patient clinics, or 15 pas.

Primary reason for consult

- 61 related to seizures
- 11 for results
- 7 related to medication queries
- 2 related to behaviour
- 2 related to diagnosis

45 also had a secondary reason for consult.

Primary outcome of the consultation

- 61 medication changes actioned
- 24 given advice and reassured
- 4 onward referrals made
- 4 given diagnosis
- 3 investigations arranged

82 also had a secondary outcome.

Impact on other potential work

Admission was likely prevented in 25 of the consultations. The consultation likely prevented/replaced a face-to-face consultation in 93 consultations, potentially prevented/replaced in a further 2 and only was unlikely to have replaced this in 1 case.

Conclusions

The telephonic consultations currently being offered is being well utilised and frequently results in active changes to patients management, as well as advice and reassurance to patients. Correct utilisation of this service provides financial saving for the trust by preventing face-to-face clinic consultation and admission.

The application of an effective telephonic consultation service, especially in the low resource setting, could have significant financial and time savings both for clinician and family, thus making healthcare more affordable.

BAPIOAC18-03

Antimicrobial Resistance: How Fixed Dose Combinations Could Be India's Biggest Public Health Scare

Anita Iyer, Vishal Dovedi, thujina Thillainathan
Barts And The London
anitaiyer8@gmail.com

Background:

One of the biggest issues impacting global health is antimicrobial resistance of which India has one of the highest rates. The risk of misuse of these medications may ultimately lead to inability to treat common infections. There are growing concerns that the unregulated licensing of two or more antibiotics and other drugs in combination i.e. Fixed dose combination drugs (FDCS), may be the cause of this. We analysed a report recently released by a government-elected expert committee, looking at unlicensed FDCS in India.

Methods:

We split the method of this research in to three phases. The first phase was to outline the FDCS in 3 key categories; antimicrobial, anti-diabetics and NSAIDs. Once compiled, the second phase was to compare how FDCS with the same drug formulations varied in dosages, and to assess which of these were deemed rational by the committee. The third and final stage was to compare this to the up-to-date CDSCO approval list, to understand whether these FDCS, in their specific doses, should or should not be available in the market.

Results:

316 individual FDCS were classed irrational by the Kokate committee in the 3 key categories. Of this 202 were antimicrobials, 84 NSAIDs and 30 anti-diabetics. Only a small fraction of the FDCS were approved by CSDCO.

Conclusion:

This analysis shows a high number of FDCS were considered irrational by an expert government-elected committee. Worryingly, many of which are still on the market as shown by the CSDCO approval list.

BAPIOAC18-04

Diabetic Ketoacidosis – A Case of Missing Glucose

Amit Badshah, Irfan Khan, Tariq Memon, Ravi Potdar, Sahil Bhagat

Background

Sodium-glucose co-transporter-2 (SGLT2) inhibitors are a novel class of oral antihyperglycemic agents. They are becoming increasingly popular as they have been have been proven to reduce the[1] cardiovascular mortality in addition to improving the glycaemic control. They are associated with increased risk of diabetic ketoacidosis (DKA) with normal blood sugar level, which could be a diagnostic challenge in the emergency settings and have potentially severe consequences if missed.

Case report

A 56 year old male presented with 3 days history of feeling unwell, vomiting and shortness of breath. He had background history of T2DM managed with oral hypoglycemic agents including Dapagloflozin. Apart from tachycardia, systemic examination was unremarkable. Biochemical work up revealed D- dimers more than 1000, raised WBC count (15). Venous blood glucose was 10mmol. Chest X-ray was clear. ABG showed metabolic acidosis with low bicarbonate. Pulmonary embolism was suspected based on slightly raised D-Dimers, breathlessness with a clear chest x-ray. CT Pulmonary Angiogram was requested by the ED team to rule out PE. On medical team review, he was noted to have high anion gap metabolic acidosis. Serum ketone levels were high (7.1) despite blood glucose of 10mmol. The patient was ultimately diagnosed with euglycemic DKA secondary to SGLT2 inhibitors and CTPA was cancelled thus saving patient from unnecessary radiation exposure.

Patients on SGLT2 inhibitors may develop DKA especially in face of acute illness or surgery. The exact mechanism is yet known but it is hypothesised to be related to glycosuria-induced insulinopania causing ketogenesis. Aditionally SGLT-2 inhibitors also change Insulin:Glucagon ratio favoring 2 ketogenesis.

Case resolution

This patient received treatment as per the standard DKA management and made full recovery within 12 hours. He had been started on SGLT-2 inhibitors no longer than three days which was subsequently stopped. This case highlights a very short lag period for developing euglycaemic DKA with no apparent trigger.

References

1. Empagliflozin, Cardiovascular Outcomes, and Mortality in Type 2 Diabetes N Engl J Med 2015; 373:2117-2128

BAPIOAC18-05

Patterns And Risk factors of Acute Poisoning Among Children in Rural Sri Lanka

Dayasiri, Kavinda
Oxford University Hospital, Oxford, United Kingdom
Jayamanne, Shaluka
University of Kelaniya, Sri Lanka
Jayasinghe,Chamilka
University of Kelaniya, Sri Lanka

Objectives

The study describes the patterns of accidental and deliberate poisoning, first aid measures, reasons for delayed management, complications and outcome following acute poisoning among children (9 months- 12 years) in rural Sri Lanka. It also describes patient, poison and environment related independent risk factors in the same age group.

Methods

The current multi-center study was hospital based and involved the two major hospitals (Anuradhapura and Polonnaruwa), and 34 peripheral hospitals of the North Central province of Sri Lanka (NCP). Total period covered by the study was seven years (2007 – 2014). Data were collected using interviewer administered questionnaires and a qualitative study (n=383). Age and gender matched case controlled study (n=600) assessed independent risk factors by multiple logistic regression method.

Results

Among 1621 children, boys (956, 59%) outnumbered girls and most were in preschool age group. Majority belonged to the farming community. Commonest poison and type of poison were kerosene oil (307, 18.9%) and household poisons (489, 30.2%) respectively. Most had unintentional poisoning and incidents mostly occurred within their own house premises (304, 79.4%). Potentially harmful first aid measures were practiced on 113 children (29.5%). Deliberate poisoning rate was 4.95% (n=19) and were mostly associated with disrupted family dynamics and emotional vulnerability. Among 23 proposed risk factors, three risk factors were significant with $p < 0.001$ (CI= 99%) - inadequate supervision of the child, mother being employed during daytime and lack of family support to look after the child. Unsafe storage, unsafe environment, incorrect parenting and delayed development in child were among other significant risk factors. Common reasons for delayed management were following delayed presentation due to lack of concern and knowledge regarding urgency (65, 16.9%) and complications (64, 16.7%). Complications were observed in 12.5% related to poison and first aid measures and commonest were chemical pneumonitis and acute liver injury. Psychological support was offered to 16% of deliberate poisoning victims.

Conclusions

Victims of acute poisoning in paediatric age group are predominantly preschoolers, and male children are at a higher risk. Complications though rare are potentially preventable through community education regarding risk factors, timely medical care and avoidance of harmful first aid practices. Since majority of accidental poisoning occurred in home environment, safe storage and assurance of safe environment as measures of prevention need further evaluation. Incorrect parenting and delayed development as risk factors need further studies as they were previously unreported. Psychological support to victims of deliberate poisoning should be improved in the studied population.

BAPIOAC18-06

Understanding Hip Fractures Made Easy: The Kinaesthetic Learning Device

Claire Lambourn
Prashanth D'sa
Amol Tambe
University Hospitals of Derby and Burton NHS Foundation Trust, Derby, DE22 3NE UK
claire.lambourn@nhs.net

Background:

The mainstay of fracture teaching has been by viewing and interpreting radiographic images. We have developed a device to provide a bridge between the 2-dimentional representation of a hip fracture as seen on radiographs to an anatomical 3-dimentional model, which reproduces the deformity and displacement that takes place in a hip fracture in real life situation.

Methods:

The Kinaesthetic Learning Device-Hip (patent pending) (KLD-H): A hip fracture was simulated on a saw bone. The main fracture fragments were attached using an elastic band and an adjustable toggle through a drill hole in the centre of the femoral head and neck. A variety of fracture configurations along the lines of Garden classification were reproduced. This device also facilitates the understanding and correlation of the hip fracture to the lateral view radiograph of the hip.

This device was used during Neck of femur fracture teaching for final year medical students. A questionnaire with 10 scale rating was used to obtain feedback from the students, to assess the impact of the device in improving their knowledge and understanding of hip fracture anatomy, deformity and radiology.

Results:

Completed feedback questionnaires were received from 38 medical students . Average score for understanding of anatomy & radiology of hip fracture prior to exposure to this device was 4.2 (range 1-7). This score improved with the use of KLD to 9.3 (range 7-10). 90% of the learners rated their understanding of hip fracture anatomy and radiology to have improved to 9 or more on the scale.

Conclusions:

This simple and inexpensive learning device has allowed us to stimulate the kinaesthetic learning style and improve understanding of hip fracture anatomy and correlation to radiographs.

Implications:

This technique could be used to create various fractures on inexpensive saw bone models for medical student teaching including other medical/nursing specialties.

BAPIOAC18-07

HLA-DQ2/DQ8 Typing For Non-Biopsy Diagnosis "AE" Is It Necessary?

Jagrati Chopra
Southampton General Hospital
Siba Prosad Paul
Torbay District Hospital
Camilia Vaina
Yeovil District Hospital
Dharamveer Basude
UHBFT University of Bristol
dbasude@gmail.com

Background:

Non-biopsy pathway of diagnosis of CD was implemented in the SW England in May 2013. This requires anti-tissue transglutaminase (tTG) titre greater than 10 times the upper limit of normal (ULN), positive anti Endomysial antibody (EMA) and positive HLA-DQ2/DQ8. Provided the higher costs, the expected HLA-DQ2/DQ8 positive status in symptomatic children with anti-tTG >10xULN, and the potential confusion and risk of misdiagnosis of CD if used inappropriately, this clinical study was set with the following objectives:

(1) identify the symptomatic paediatric patients in southwest England diagnosed with CD via the non-biopsy pathway since May 2013.

(2) determine HLA-DQ2/DQ8 status in these patients

(3) Final diagnosis when HLA DQ2/DQ8 was negative in these patients.
(4) feasibility of withdrawing HLA-DQ2/DQ8 testing from the non-biopsy pathway.

Methods:

Cases were identified from the electronic non-biopsy pathway register kept at BRHC which was updated based on voluntary reporting of cases diagnosed serologically in BRHC and DGHs. The endoscopy register from BRHC was cross-checked for symptomatic cases with anti-tTG>10xULN but had negative HLA-DQ2/8.

Results:

HLA-DQ2/DQ8 results were available for 96/110 patients. 95/96 patients (99.0%) were positive for HLA-DQ2/DQ8 (figure 5). Of these, 90/95 (94.7%) were HLA-DQ2 positive, 18/95 (18.9%) were HLA-DQ8 positive and 13/95 (13.7%) carried both haplotypes. One patient was negative for HLA-DQ2/DQ8, however subsequent smallowel biopsy confirmed CD histologically of Marsh classification 3b. For the remaining 14/110 patients, HLADQ2/DQ8 typing was not requested or not reported, but a diagnosis of CD was confirmed serologically nonetheless.

Conclusion:

We conclude that identification of the HLA DQ2/DQ8 status did not contribute towards confirming the CD diagnoses. Provided the high prevalence of HLA-DQ2/DQ8 in the general population, dangers of misuse and misinterpretations, alongside the significantly higher costs, we suggest consideration towards the removal of HLA-DQ2/DQ8 testing from the non-biopsy serological diagnostic criteria for CD. To clarify this further we propose a national survey to report HLA-DQ2/DQ8 negative cases in symptomatic children who are anti-tTG >10xULN and EMA positive.

BAPIOAC18-08

A Single Centre 2-Year Experience Of Paediatric Wireless Capsule Endoscopy: Benefits, Risks And Considerations

Laxmipriya Selvarajan
Dharam Basude
Jacqui Porter
University Hospital Bristol
dbasude@gmail.com

Introduction

Wireless capsule endoscopy (WCE) for the investigation of small bowel pathology has been established in our tertiary paediatric gastroenterology service since July 2015. In this report, we describe our two-year experience with WCE.

Methods

All paediatric patients aged <18 years who underwent WCE from 1 August 2015 to 1 August 2017 were included in our study. The wireless capsule system used was the MiroCam, manufactured by Intromedic. We audited compliance to standards from NICE guidelines and NHS England. These were as follows: correct indications for WCE, procedure to be performed within six weeks of request, successful end-to-end visualisation of the small bowel and no significant complications of WCE. We aimed for 100% compliance to these targets. Data was collected electronically.

Results

Over a two-year period, 26 patients underwent WCE. 15 (55%) were male and 12 (45%) were female. Median age was 11.5 years (range 2-18). 13 patients (50%) were able to swallow the wireless capsule, with the youngest patient being 8 years old. The rest were placed endoscopically. Of the indications for WCE, 11 (42%) were for investigation and surveillance of polyposis, 10 (38%) for suspected Crohn's disease, 3 (12%) for occult gastrointestinal bleeding, and 2 for other gastrointestinal symptoms.

4 (15%) of procedures were unsuccessful or provided only limited views. Of these 1 was due to a battery failure while 3 were secondary to food debris. One had previous bowel surgery (swallowed WCE) and 2 were endoscopically placed but were allowed to eat after 2 hours of placement.

Of the 26 procedures, 15/26 (58%) revealed pathology. These included polyps (8, 30%), small bowel ulcers (5, 19%), small bowel bleeding (1, 4%) and lymphangiectasia (1, 4%)

21/26 (81%) procedures were completed within 6 weeks of request. We had no significant complications.

Conclusions

In our experience, WCE is a safe and useful method for assessing small bowel pathology. Through careful patient selection, we experienced no complications and more than half of patients had clinically significant findings. To avoid failures in procedure, we recommend that bowel preparation procedures and the timing prior to food re-introduction be altered in cases where the wireless capsule is endoscopically placed, or if there are risk factors of slow motility.

https://www.google.com/

BAPIOAC18-09

Availability Of Laboratory Investigations For Paediatric Inflammatory Bowel Disease; Findings of A Nationwide Survey.

Lucy Bates
University of Bristol
Siba Prosad Paul
Torbay District Hospital
Dharam Basude
University Hospital Bristol
dbasude@gmail.com

Background

The early diagnosis, classification and appropriate management of paediatric inflammatory bowel disease (PIBD) continue to pose challenges. Labs in the NHS mostly invest in the resources for investigations independently at trust level. There are no national standards directing required investigations which leads to variability in their availability and hence in clinical practice. Paediatric gastroenterologists and Paediatricians often find themselves limited by the availability of these investigations and hence are forced to make less informed decisions whilst managing this condition.

Aim

To investigate the availability of IBD related laboratory investigations

In NHS laboratories in England and to discern whether there are regional variations.

Subjects and Methods:

A structured telephone survey was conducted in July 2016 by a single interviewer by contacting the clinical Labs in Acute NHS trusts across England with paediatric services. The available online handbooks for each lab were also accessed and where appropriate scientists were unavailable the survey questions were sent by email. The data was collected on a database and analysed using Microsoft excel. No ethical approval was required for this study.

Results

A response was obtained from 136 out of 139 laboratories (97.8%).

- Inflammatory markers (other than CRP): ESR is widely available at 98%.
- Faecal calprotectin was available in 89% of labs although only 51% offer in house testing. 84% allow any clinician to request the test whereas the rest allow only a few clinician groups to request.
- ANCA can be tested in 94% of labs but ASCA is available only in 29%.
- TPMT activity was available in 96% of labs with only 29% testing this on site.
- 6-Thioguanine metabolites was offered only by 58% of labs with 89% outsourcing it.
- Infliximab serology is offered in only 61% of labs with only 14% able to test this on site. This is least accessible in the East Midlands.

Summary and conclusion

There is extensive regional heterogeneity in the availability of laboratory investigations for PIBD in England. There is also a significantly low level of on-site testing for a number of investigations which is likely to significantly add to the time lag in obtaining results. More research is needed to confirm the utility of the laboratory investigations in PIBD and establish their use. National guidelines should include standards for the investigations required and provide information on cost effectiveness to allow at least the regional units of each region to access the tests promptly.

BAPIOAC18-10

Awareness Of The Revised European And National Guidelines On Paediatric Coeliac Disease Amongst General Paediatricians In Southwest Of England

Helen Louise Adams, Siba Prosad Paul, Dharamveer Basude
University Hospital Bristol NHS Trust
dbasude@gmail.com

Background

Guidelines for paediatric coeliac disease (CD) were revised by the European and British Societies of Paediatric Gastroenterology Hepatology and Nutrition in 2012 and 2013 respectively. New recommendation introduced non-biopsy pathway (NBP) of diagnosis for a selective group of symptomatic children whose anti-tissue transglutaminase (anti-tTG) antibody titre is greater than ten-time upper limit of normal. A clear understanding of the guidelines amongst general paediatricians will ensure all children with suspected CD receive prompt and secure diagnosis. Aim of this study was to establish the awareness and implementation of the revised guidelines for diagnosing CD amongst general paediatricians in Southwest England (SWE).

Methods

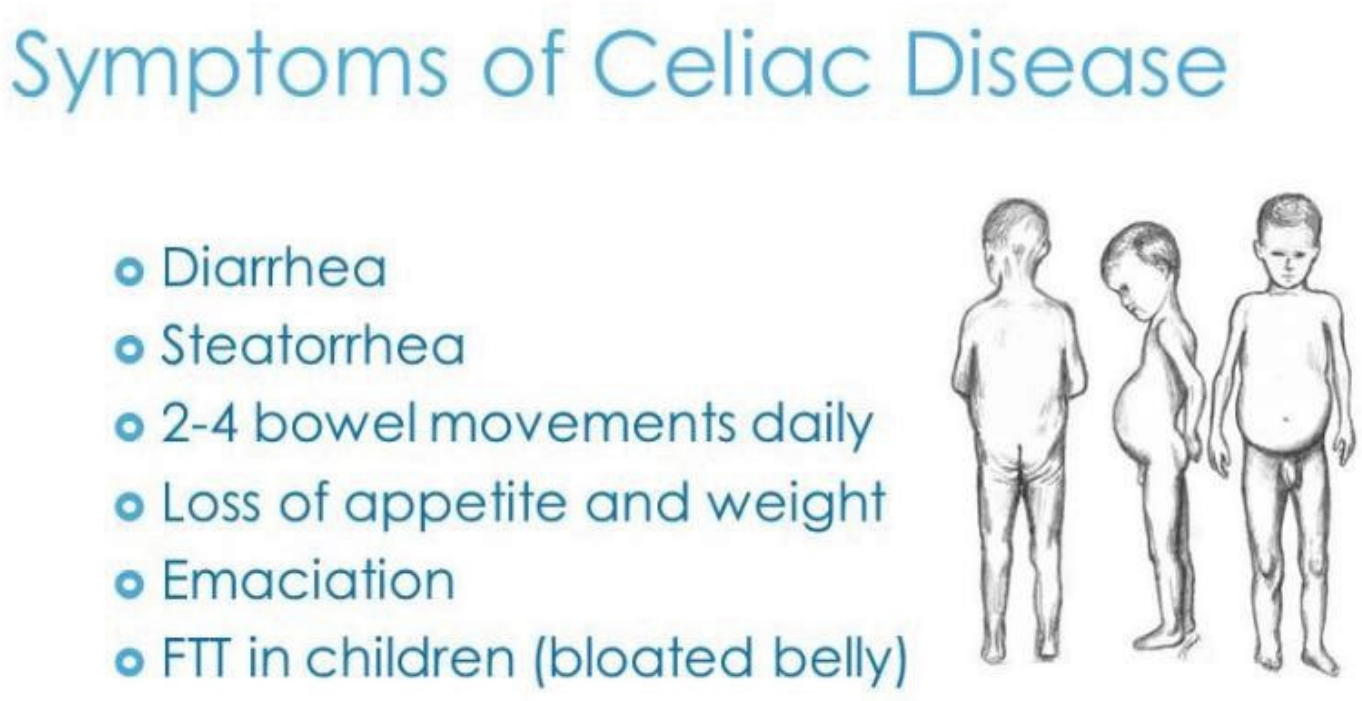
Telephone/email survey was conducted amongst consultant general paediatricians (n≈140) working in 12 district general hospitals across SWE. Survey included 8 questions incorporating 3 main themes: understanding of diagnostic pathway particularly for non-biopsy diagnosis, awareness of laboratory tests involved and variations in practice in relation to the revised guidelines.

Results

Responses were available from 101/140 (72%). 100 were aware of revised guidelines for diagnosing CD. However, only 17 stated all the required criteria for diagnosis via NBP. Further 17 did mention seeking advice from specialist in Paediatric Gastroenterology. 44 listed both criteria for HLA-DQ2/DQ8 testing applicable to paediatricians. 49/100 Paediatricians would commence gluten-free diet only after all results were available. 33 paediatricians also considered asymptomatic children with high anti-tTG eligible for diagnosis of CD via NBP.

Conclusions:

There is need for improved understanding of revised CD guidelines amongst consultant general paediatricians especially while using the NBP and requesting HLA-DQ2/DQ8.



BAPIOAC18-11

'Fast Track Bariatric Surgery' an efficient model.

Background

Repeated cancellation of bariatric procedures due to lack of inpatient beds instigated a quality improvement project (QIP). Fast track surgery is based on the principle of reducing operative time and early mobilisation leading to quicker recovery and early discharge of bariatric surgery patients. The aim of this QIP was to effectively utilise short stay beds for bariatric surgery and improve theatre time utilisation.

Methods

A change in practice was implemented that incorporated alterations in patient expectations of hospital stay, quicker standardised surgery and anaesthetics, more rapid turnaround and the utilisation of monitored recovery beds to allow for 23 hour stay fast track model.

Results

16 patients were analysed before implementation of fast track, and 17 following; 8 and 9 LRYGB (Laparoscopic Roux en Y gastric bypass) and 8 and 18 LSG (Laparoscopic sleeve gastrectomy) respectively. There was no difference between gender and BMI between pre and post fast track groups.
After the changes were implemented, anaesthetic time was reduced (19.3mins to 18 mins, p=0.01), median operative time was also reduced in both groups (LGRYB 136 mins to 96 mins (p=0.01)) and LSG 85 mins to 61 mins (p=0.03), and overall time of the patient in theatre was reduced from 159 mins to 111 mins (p<0.001) allowing for an extra case to be added to the list. Rates of discharge after an overnight stay were increased after fast track was introduced (31% to 65%) resulting in reduced cancellations.

Conclusion

Implementation of Fast track bariatric surgery in selected group of patients is safe; feasible and improves theatre time utilisation and efficient use of hospital resources by early discharge.

BAPIOAC18-12

Qualifying Apoptotic Cells in Cortical and Hippocampal Regions of Rat Pups Exposed to Sevoflurane

Khadijah Ginwalla, Marina Morrell,Hannah Gill
University Hospitals Bristol NHS Trust
kg16616@my.bristol.ac.uk

Background:

Inhaled anaesthetics are used worldwide in surgical procedures including paediatric cases. Recent evidence has suggested that these may have neurodegenerative impacts on the developing brain and research groups are actively looking for countermeasures to ensure they are not detrimental. Gill, H. has been working on establishing a sevoflurane-induced model of apoptosis in rat pups to test neuroprotective strategies. This study aims to establish the following model on rat pups and also looks at the specific cell types that are being affected in this sevoflurane-induced apoptosis.

Method

Rat pups were exposed to differing durations of sevoflurane on postnatal day eight and then culled. Their brains were harvested, sectioned and stained and cleaved caspase 3 activity was compared between the six groups in the cortex and hippocampus under the microscope. An additional experiment was carried out to study which cells were undergoing apoptosis using GFAP and Iba1 to image astrocytes and microglia.

Results

6-hour sevoflurane exposure produced the most apoptosis in both cortex and CA3 hippocampal area. The superficial cortex was more affected by sevoflurane than deeper cortical layers. Astrocytes were found to not be affected by sevoflurane, but microglia are. It may be that the microglia were phagocytosing the damaged cells that were undergoing apoptosis.

Conclusions

Longer durations of sevoflurane exposure, here 6 hours, produced more neuronal apoptosis in 8-day old rat pups as determined by the Kruskal Wallis test- one-way ANOVA. However, none of the cells undergoing apoptosis, in this case, were found to be astrocytes. Conversely, approximately 27% were found to be microglia. The clinical implications of this sevoflurane-induced apoptosis and neuroprotective measures remains an area that yet needs to be determined.

BAPIOAC18-13

Traumatic Rotator Cuff Tears. Outcomes Of Repair After Introducing A Specialist Acute Shoulder Soft Tissue Service.

Kriti Singhania
Royal Derby Hospital/Addenbrooke's Hospital
Anuj Jaiswal
Royal Derby Hospital
Marcus Bateman
Royal Derby Hospital
Amol Tambe
Royal Derby Hospital
kriters41@gmail.com

Aim

The aim of this study was to evaluate outcomes and complications post repair of traumatic rotator cuff tears.

Method

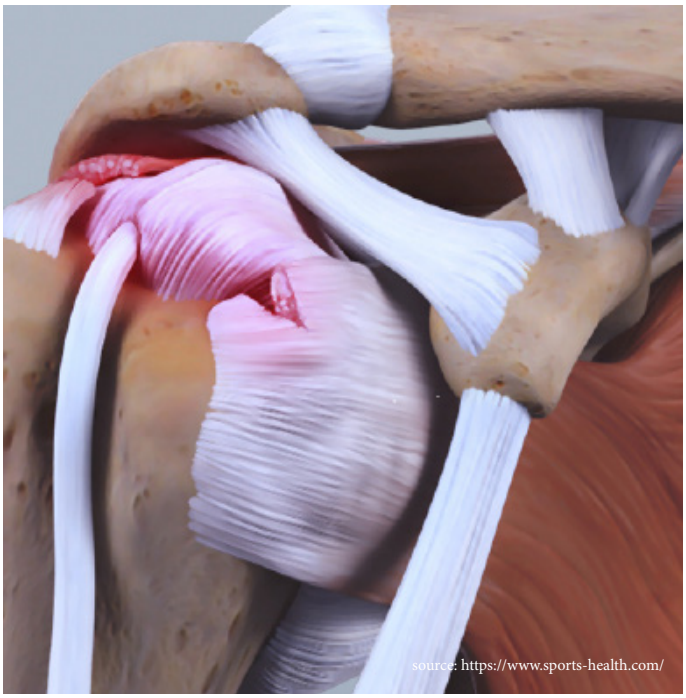
A specialist physiotherapist led acute soft tissue shoulder service was set up at Derby Hospital to avoid delays in managing patients with soft tissue shoulder injuries. A total of 665 patients where seen between 3/10/2014 and 6/10/2017, with 33 being diagnosed with a traumatic cuff tear. Of these, 29 underwent surgical repair. It was these 29 patients we followed up postoperatively using Oxford Shoulder scores (OS) and Constant scores to evaluate shoulder function, as well as EuroQol5D scores to evaluate general health status. A 5-point satisfaction score and return to work were asked to help determine overall satisfaction.

Results

There were 29 patients (7 females and 22 males) who underwent a traumatic rotator cuff repair over 3 years. Mean age was 59 years(range 44-74). The mean waiting time for review in clinic was 16 days(range 1-56). Fourteen patients had same day ultrasound scans (USS), with the remaining 15 having an USS at a mean of 10 days. The mean time to surgery from presentation to clinic was 40 days(s.d. 48). Three underwent open surgery with 26 were performed arthroscopically. All 29 had supraspinatus (SS) tears, however only 17 had isolated SS tears. Two had SS tears associated with long head biceps rupture, 6 SS and infraspinatus tears and 4 SS and subscapular tears. At mean follow up of 25 months(range 6-39) post operatively the median OS was 43.5(range 27-47), median Constant score 77(range 43-99) and the median EQ VAS 85 (range 50-100). A total of 26 patients (90%) returned to work or their hobbies, with 3 (10%) changing occupation. Five patients (17%) had a post operative complication; 2 (7%) experienced frozen
shoulder and 3 (10%) a re-tear. Of these patients, 2 underwent surgical intervention and 3 were managed conservatively. Despite this the median satisfaction score was 5/5 (very satisfied).

Conclusion

With change in our practice we were able to recognise the need for early surgical intervention and demonstrate comparable functional outcomes from traumatic cuff tear repairs to published literature; with high patient satisfaction and low complication rates. A similar model could be replicated in other units to potentially improve waiting times and hence patient outcomes.



BAPIOAC18-14

Drop-In Sessions For New Foundation Year 1 (F1) Doctors Starting At The Royal United Hospital (Ruh), Bath.

Dr Lauren Brain (Royal United Hospital),
Dr Jenny Stuart-Smith (Royal United Hospital)
Lauren.brain1@nhs.net, Jenny.stuart-smith@nhs.net

Background:

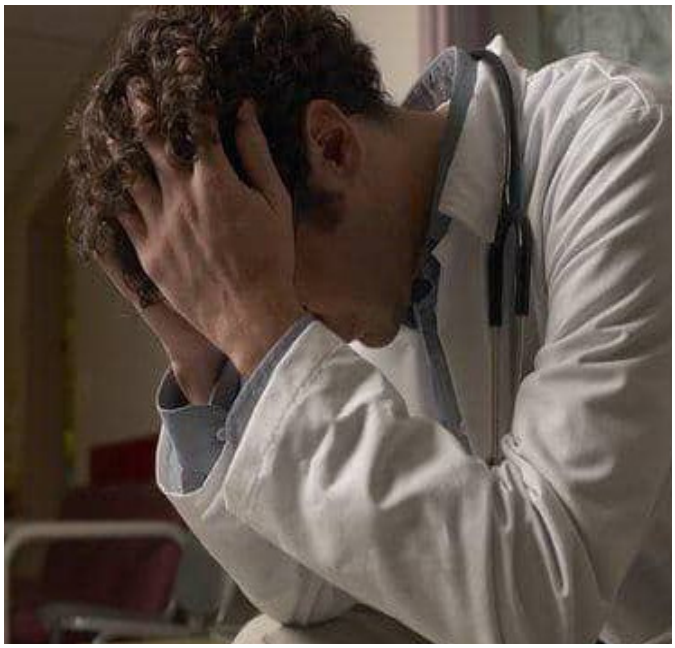
The transition between medical school and becoming a qualified doctor is notoriously stressful. A survey published in December 2016 by the Royal College of Physicians revealed that 80% of trainees felt excessive stress because of their job. An initial survey in July 2016 of outgoing F1s at the RUH revealed that 100% would have valued a peer support scheme when starting work. We devised an innovative programme whereby F2 doctors were available to provide educational, pastoral and social support and advice to incoming F1s. The aim of this scheme was to provide peer-to-peer support and improve the wellbeing of new doctors entering the medical profession.

Methods:

For the first two years of the scheme we provided face-to-face drop-in sessions led by F2 doctors who had recently completed F1 in the same Trust. These sessions ran daily for the F1s' first two weeks. Incorporation of feedback from the first two years of the scheme led to the addition of an email contact which was monitored daily by a small number of F2s. All queries were treated as confidential, with the option to escalate to a senior if any patient or doctor safety concerns were raised. To date, the scheme has been running for three years.

Results:

All F1s surveyed agreed that the first month was stressful, and >97% agreed that it was useful to have access to a peer support drop-in session during this time. The average uptake for the sessions and email resource was 10% over the three years, with all of those accessing the scheme finding it beneficial. 38% of F1s thought they would continue to access support via email in future.



Key messages:

This scheme was well-received both by junior doctors and senior colleagues. Following initial feedback that the low attendance rate was related to the timing of the sessions, an email contact was developed to increased accessibility. Feedback was extremely positive throughout all three years and also revealed that F1 doctors going through the scheme are keen to support their junior colleagues in future years. Incorporation of the feedback received shows promise for future development of the programme.

BAPIOAC18-15

Can Antidepressants Affect The Lower Urinary Tract Function? A Urodynamic View Point.

Chendrimada K Madhu
Consultant Subspecialist Urogynaecologist, Department of Women's Health and Bristol Urological Institute, Southmead Hospital, Bristol
Doyo Enki
Consultant Urological Surgeon and Director of Urodynamics Unit, Bristol Urological Institute, Southmead Hospital and onorary Senior Lecturer, University of Bristol
Mohammed Elhodiaby
Research Fellow in Statistics, Plymouth University Peninsula Schools of Medicine and Dentistry
Hashim Hashim
Specialist Registrar, Department of Women's Health, Southmead Hospital, Bristol
Marcus J Drake
Consultant Urologist, Bristol Urological Institute, Southmead Hospital and Senior lecturer, University of Bristol

Corresponding author:
Dr. Chendrimada Madhu
Department of Women's Health and The Bristol Urological Institute, Southmead Hospital, Westbury-on-Trym, Avon, Bristol BS10 5NB
cmadhu@nhs.net

Summary:

This study is a review of risk factors and functional abnormalities in women (age > 18) on antidepressants and bothersome lower urinary tract symptoms.

Key words: Antidepressants, urodynamics, overactive bladder, stress incontinence, detrusor overactivity
Short title: Risk factors and urodynamic findings in women on antidepressants

Introduction:

Depression is a common condition and antidepressants (AD) are one of the most commonly prescribed medications used in the management. Depression and AD may contribute to lower urinary tract dysfunction and the evidence and mechanisms are not very clear. The aim of the study was to evaluate the functional effects of AD on the lower urinary tract.

Materials and methods:

Women attending a tertiary referral centre in the UK with bothersome LUTS underwent a comprehensive standardized evaluation including urodynamic testing in accordance with the International Continence Society recommendations. They were routinely enquired for the use of AD and data was evaluated and studied under various categories. Multiple logistic regression was used to identify statistically significant risk factors and urodynamic findings associated with AD use. Ethical approval was obtained to evaluate the data from the database.

Results:

Data was available for 14,612 women (age ≥18). 8.9% of women undergoing urodynamic testing for bothersome LUTS reported use of AD. AD use was significantly associated with high BMI (OR=1.278, p=0.010), cigarette smoking (OR=1.442, p<0.001), and postmenopausal status (OR=1.139, p=0.016). Women using AD significantly complained of overactive bladder (OAB) symptoms (OR=1.24, p=0.036) but not stress urinary incontinence (p= 0.840). Detrusor overactivity (OR=0.72, p=0.036) and urodynamic stress urinary incontinence (p=0.845) were not shown to be significantly associated with AD use.

Conclusions:

AD usage is significantly associated with overactive bladder symptoms. Detrusor overactivity does not seem to be the mechanism for these symptoms suggesting an alternative causative mechanism. Further research is needed to explore the association of depression or use of antidepressants with lower urinary tract symptoms.

BAPIOAC18-16

Uncontrolled Hypertension; From Determinants To First Encounter At Emergency Unit Of Baghdad Teaching Hospital

Al-Saffar M.B. ,Al-Jarshawi M.H. ,Al-Hallaq S.Y.
Four year students, at the University of Baghdad/college of medicine
alsaffarmena@gmail.com

Background

Hypertension is uncontrolled when blood pressure reading is more than 140/90 mmHg. This condition places the individual at risk of developing hypertensive crisis, whether emergency or urgency .

Aim:

To identify the proportion and evaluate the management of uncontrolled hypertension in the emergency department and review some characteristics of uncontrolled hypertensive patients.

Methods

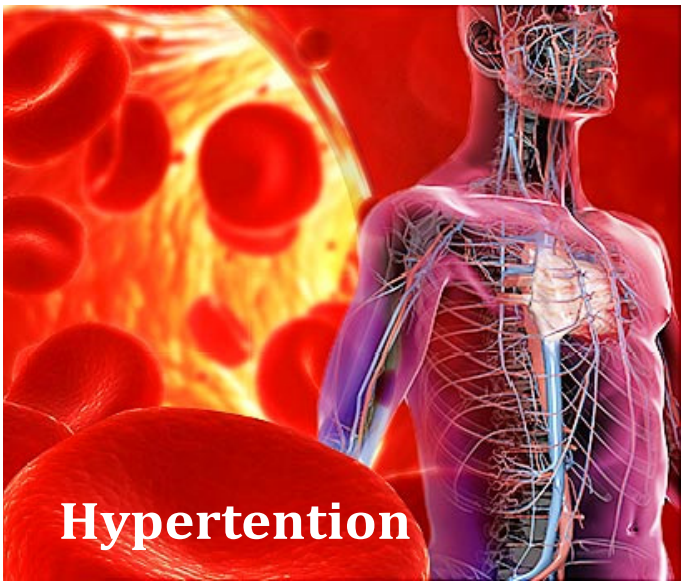
Four hundred and nine cases presented with blood pressure (>140/90 mm Hg) , irrespective of past medical history of hypertension , to the emergency unit at Baghdad teaching hospital were included in this retrospective cross-sectional study. Data on socio-demographic, ,chief complaints, past medical history, work-up, management with anti-hypertensives and disposition was collected from patients records in achieves between July and September 2017

Results

Cases with uncontrolled hypertension formed 6.56% of all admissions to emergency department. Means of systolic and diastolic blood pressure readings were 169.98 and 96.66 mm Hg, respectively. In this study (45.47%) were male and (54.52%) were female. Average age was 54.95. One hundred and fifty-one (2.4%) only were cases of hypertension crisis among emergency unit attendants. Diabetes mellitus was the single most common past medical condition among all included cases. Shortness of breath was the main chief complaint (22%) in hypertension crisis cases: chest pain was the most common presenting complaint in all included cases. Management was not documented in records of 214 (50%). However , in most of the remaining cases , 137 (70%) consisted of : loop diuretics (furosemide), Angiotensin-converting enzyme inhibitors in 22 (11%), calcium channel blockers in 17 (8%) , and beta-blockers in 13 (6%).

Conclusion:

One third of patients who attended emergency department with elevated blood pressure were cases of hypertension crisis. Diabetes mellitus was the major co-morbidity. Local practice in management was not compliant to the global guidelines and severity but subjected to the availability of medication.



BAPIOAC18-17

Improving Care For Children Presenting With Atraumatic Limp

Nilushika Weerapperuma,
Upeka Senanayake,
Emma Vallis-Booth,
Sahana Rao
Oxford University Hospital NHS Foundation trust
Nilushika.Weerapperuma@ouh.nhs.uk

Background

Atraumatic limp is one of the top 10 conditions for which children attend the paediatric ambulatory unit (CDU) at Oxford. There is a significant variation in investigations leading to delays in discharge. Early review and discharge of patients is essential to ensure flow through ED ambulatory unit.

Aim

We undertook a quality improvement project with the aim to improve care for children presenting with atraumatic limp to OUH NHS Trust. We aimed to streamline investigations; avoid unnecessary tests/ delays and improve the patient flow.

Methods

Data was collected from all children presenting with a limp between June and August, 2018 (n=26). We included all cases of limp irrespective of the cause or final diagnosis. Cases where there was a clear history of associated trauma were excluded.

Data was collected retrospectively by reviewing the electronic patient records and the clinical case notes. We developed a proforma collecting data throughout the patient journey to identify the common reasons for delay.

Results

Out study showed that there was significant variation in the investigations performed. Majority of the ESR samples were rejected due to insufficient sample, leading to children needing to have a second blood test.

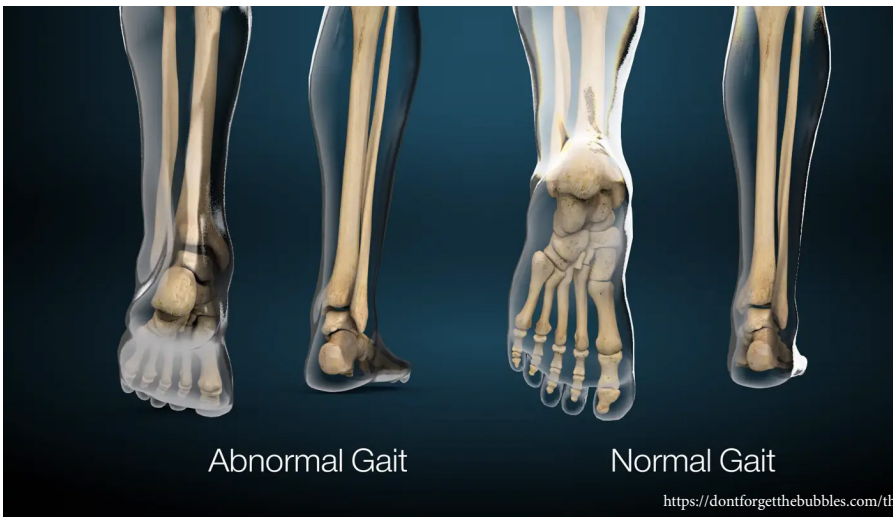
Analgesic provision was limited and given in only 90%.

Delays in discharge leading to increased length of stay in CDU

We performed well in areas including prompt review, early medical decision and providing safety net advice.

What next ?

- Care-set for limp developed on EPR to streamline investigations.
- Guidelines for limp were reviewed with clear criteria for investigations
- Education for nurses and MDT regarding analgesia
- Incorporate session on limping child in junior doctor teaching.



BAPIOAC18-18

Use Of Portable Diagnostic Ultrasound To Inform Treatment Choices For Hemiplegic Shoulder Pain In People With Chronic Stroke - A Case Series

Praveen Kumar (University of West of England), **Regi Abrham** (Morrello Clinic), **Sarah Harling** (Morrello Clinic), **Jakko Brouwers** (Morrello Clinic)
praveen.kumar@uwe.ac.uk

Introduction

Hemiplegic shoulder pain (HSP) has a reported incidence of up to 84% of patients. HSP is multi-factorial in nature and interventions are very varied but are generally unsatisfactory. The objective of this case series study is to report findings on patients with HSP who underwent scanning using portable diagnostic ultrasound and received problem specific treatment.

Abstract Methods

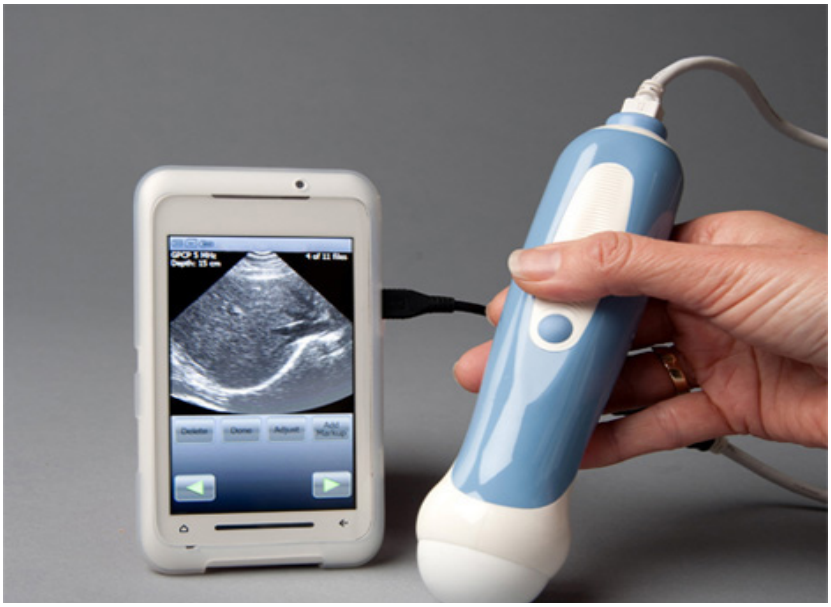
Six patients with HSP were receiving rehabilitation (over-arm exercises, electrical stimulation, stretches, Saebo exercises) in a private clinic but were not showing any improvement. Ultrasound scanning was undertaken and following problems were identified: glenohumeral subluxation (GHS), supraspinatus atrophy (diameter of supraspinatus), rotator cuff tears, and bicipital tendinitis. Treatment included: 1) ultrasound guided electrical stimulation to supraspinatus; lateral deltoid (GHS, supraspinatus atrophy) 2) rotator cuff training / isometric exercises (Rotator cuff tears, supraspinatus atrophy). 3) Avoiding of over-arm activities. Other treatment included scapula setting exercises (for posture and muscle imbalance).

Abstract Results

Results: At 12 weeks, patients showed 50-75% reduction in pain, 40-60% improvement in GHS (up to 1 cm affected to unaffected difference), increase in diameter of supraspinatus at rest (0.4 cm) and contracted state (0.8cm), increase in range of movement (flexion – 30 degrees, abduction – 45 degrees, external rotation – 40 degrees), improved use of arm for function / rehabilitation, and patients reported improvement in activities of daily living. Clinicians reported improvements in designing and delivery of exercise programme.

Abstract Discussion

Portable diagnostic ultrasound has potential to inform treatment choices for HSP and improve patient outcomes.



BAPIOAC18-19

The Effects Of Lycra Sleeves On Acromion-Greater Tuberosity Distance, Muscle Activity And Scapula Position In People With Post-Stroke Hemiplegia.

Praveen Kumar, Lindsay Macleod, Priya Mohan, Catherine Wheeler, Grace Wai Tse
(University of West of England)
praveen.kumar@uwe.ac.uk

Introduction

Glenohumeral subluxation (GHS) is reported in up to 81% of patients with stroke. Our previous studies found that a Lycra sleeve can reduce acromion-greater tuberosity distance (used for assessment of GHS) in people with chronic stroke (n=5). In a recent study on healthy people (n=31), we report reduction in AGT, change in scapula measurements and change in muscle activity after the application of Lycra sleeve. The aim of this study was to investigate the effect of Lycra sleeves on the acromion-greater tuberosity (AGT) distance, muscle activity around the shoulder region and scapular position in people with post-stroke hemiplegia.

Abstract Method

People with stroke who gave informed consent were recruited. Measurements were taken before and immediately after application of the sleeve. Portable diagnostic ultrasound, electromyography and a tape measure were used to measure AGT distance, muscle activity (biceps, triceps, deltoid, and supraspinatus) and position of the scapula respectively.

Abstract Results

Six participants with mean age 53±8 years were recruited. Mean±SD and 95% confidence intervals for AGT distances on the affected side before and after the application of sleeve were 2.1±0.3 (1.8-2.5cm) and 2.0±0.4 (1.6-2.4cm) respectively. There was a very slight increase in muscle activity after the application of Lycra sleeve in all muscles tested. Likewise there was reduction in scapula position (posterior tilt) (Mean difference 0.75±0.2cm after the application of sleeve.

Abstract Discussion

Findings from this study are in agreement with the previous research. Further research is required to establish the effectiveness of the Lycra sleeve using a well-designed randomised controlled trial.

BAPIOAC18-20

STROKE SURVIVORS "AE"™ PERCEPTIONS AND EXPERIENCES OF 'NEXT STEPS GROUP EXERCISE AND

Praveen Kumar, ,Ja**smine Beard, Joanne Hearne, Catrin Roberts, Domenico Redsell, Lauren Brightman** (UWE), **Jen Pearson**
(University of West of England)
praveen.kumar@uwe.ac.uk

Background:

Stroke is the leading cause of disability in the western world. The number of people living in the community with the long term problems with stroke is continuing to grow. Group exercise classes have shown beneficial effects. 'Next Steps' a group exercise class initiative in the South West of England has shown beneficial effects. However, little is known stroke survivors' experiences of this 'Next Steps,' class. The aim of this study was to therefore, to explore the stroke survivors' perception and experiences of 'Next Steps' with a focus on education, exercise, social interaction and biopsychosocial outcomes.

Methods:

A qualitative study consisting of semi-structured face-to-face interviews were conducted with stroke survivors (n=4). Convenience sampling was used. Interviews were audio-recorded and transcribed verbatim. Data were analysed using principles of thematic analysis.

Results:

Four themes emerged: 1) 'The importance of tailored exercise': Patients identified improved strength and function 2) 'More relevant education' : Participants identified education could have been more interactive and specific 3) All in it together': participants reported increased motivation due to social interaction which lead to increase confidence. 4) 'Direction and purpose': The class provided direction and purpose to participants' ongoing needs.

Conclusion:

This study supports the evidence on perceived benefits of group exercise classes. While this study suggests stroke survivors could benefit from education personalisation and exercise delivery adaptations to improve functional outcomes, small convenient sample limits the findings. Further research is required to explore carers and family members perspectives on group exercise class for people with stroke.

BAPIOAC18-21

Assessment Approaches For Hemiplegic Shoulder Pain "AE" A Scoping Review

Praveen Kumar (University of West of England,
James Hugman (University of West of England,
Ceri Owen (University of West of England,
Maddy Redfern (University of West of England,
Emily Smith (University of West of England,
Sophie Trenouth (University of West of England
praveen.kumar@uwe.ac.uk

Introduction

Hemiplegic Shoulder Pain (HSP) is reported between 16% and 84% in people with stroke. A recent survey of therapists in the UK reported that clinicians are using a wide range of assessment approaches irrespective of the underlying pathology. The main aim of this scoping review was to gather all potential assessment approaches available for adults with HSP and to identify how frequently each assessment approach occurred.

Abstract Methods

Five researchers were involved and each researcher conducted a search in one of the databases that were selected: Embase, CINAHL plus, Medline, Cochrane library and AMED. All outcome measures/assessments that were used in relation to HSP were extracted based on the set inclusion/exclusion criteria.

Abstract Results

A total of 122 out of 585 studies were found that met the inclusion criteria and 43 assessment methods of HSP were identified. The most commonly reported measures included Visual Analogue Scale (VAS) (66 times), Passive Range of Motion (51 times), Fugl-Meyer Assessment (29 times), Modified Ashworth Scale (26 times) and Numerical Rating Scale (23 times). A less commonly reported but a potentially useful tool; Shoulder Q was reported only 5 times.

Abstract Discussion

Both general and stroke specific assessment approaches were used to measure HSP. There are several limitations with the current assessment approaches as they do not encompass all domains. Several measures lacked reliability/validity in stroke population. A fully comprehensive assessment that considers subjective, objective and functional elements is needed in this area to inform appropriate treatment choices and to improve patients' outcome.

BAPIOAC18-22

Vitamin D Deficiency Rickets With Cows Milk Protein Intolerance- A Pandora`S Box

Rajat Pratap(OUH)
Mathew Snape(OUH)
Sahana Rao(OUH)
rajat.pratap@ouh.nhs.uk

Introduction:

Vitamin D is an essential vitamin for the health and growth of bones. Vitamin D deficiency is more prevalent in adults and children, due to a lack of exposure to sunlight and nutritional deficiency. We discuss a case of Vitamin D deficiency and cows milk protein intolerance.

Case report:

We describe the case of a 8 month old child presenting with abdominal pain and faltering growth. He was incidentally noted to have features of rickets including frontal bossing and widening of wrist bones. The biochemistry and radiographic investigations was consistent with a diagnosis of Vitamin D deficit rickets. He was exclusively breast fed for most of his life with did not receive any supplements. When attempts were made to introduce cow's milk formula, he had developed severe eczema, which responded to cow's milk free diet.
He also had UTI(proteus) and renal calculi.

Summary:

We discuss the etiology; epidemiology and management of Vitamin D deficiency in adults and children. We would like to emphasise the importance of adequate vitamin D supplementation in children at risk especially those with cow's milk protein intolerance and the RCPCH statement on Vitamin D deficiency.

BAPIOAC18-23

QI Project On Gynaecology Hand Over

Sujatha Kalburgi, H Zilley, Dr Lee, Dube, Dr Gurung, Bagtharia, Emeagi

Aim:

Following an SI and concers raised by the trainees in the departmental meeting in our unit at Basildon and Thurrock University Hospital we decided to improve our hand over for gynaecology patients. This project was also considered important so that all sick and deteriorating patients, outliers, new admissions and patients waiting on the emergency list are not missed from handing over.

Current issues:

Gynaecology handover takes place 4 times a day, 8am, 9am,4pm and 8pm between the SHOs. The list of patients admitted under gynaecology is not completed. There is no SBAR to refer to. Sick/ deteriorating patients, outliers and patients waiting on emergency operative list are not handed over. On many occasions the on-call team is unaware of unstable patients due to hand over issues.

Actions considered- Updating the list to the best of a doctor's ability, to add SBAR to each patient and to highlight sick/ deteriorating patients with an asterisk next to the patient details. Hand over should be extended to the whole team including registrar on call, consultant on call (where applicable) and to reduce the number of handovers.

Challenges:

BTUH being a busy unit, as any other NHS trust, very often the doctors' fall short of time to complete the hand over list. Intense work load, shortage of staff is our biggest challenge.

How to work around the challenges? - Regularly update the list. Use last 20 min of your work time to update it. Use SBAR. If unable to do so spend an extra 20 minutes to update the list, take extra 20 min. The extra time spent on updating the list to be claimed back.

Results:

We designed a pro-forma and spoke to every SHO regarding our project. One pro-forma per day was circulated; this was filled in 4 times a day by the SHO who was handing over to the next team. The aim from this pro-forma filling exercise was to persuade the SHOs to update the lists and an incentive of paying back the extra time spent on this was beneficial. We could collect 13 pro-formas in 2 weeks. Having 4 handovers a day, there were 52 in total.

Conclusion:

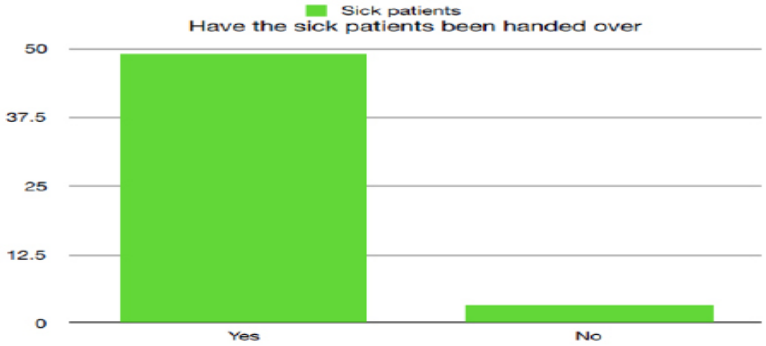
We had a positive response overall despite all the challenges mentioned above. 92% of the new patients, outliers and patients waiting on emergency list were handed over. 94% of sick patients were handed over. 71% of patients had SBAR. No SHO had to spend extra time to update the list. There were a significant number of shifts covered by locum SHOs. This project is carried out for the first time in this unit. These were likely to contribute towards not achieving 100% positive results.

Recommendations:

Regular training of all the staff involved, especially at the time of having new trainees in the department. Conducting spot checks by senior staff. To do retrospective analysis in few months' to compare the difference it would make on patient care.

Table 1

Handover	Yes	No
Sick patients	49	3



BAPIOAC18-24

Case Report: Severe Dystonia And Life Threatening Complication As A Complication Of Device Failure: Learning Points

Sanhita Gangopadhyay, Hemanth Balehithlu
Department of paediatrics, Hereford County Hospital
rm.resident@yahoo.com

Abstract:

Sixteen year old male with background history of cerebral palsy, severe developmental delay, dystonia with contractures on intrathecal Baclofen Pump, severe oesophagitis, and PEG feeding was admitted to our unit with low grade temperature and coffee ground vomitus. Initial bloods showed normal Full Blood Count and Renal Function. He was started on Iv fluid, Iv Omeprazole and Iv Co amoxiclav. His clinical condition deteriorated with increasing agitation and dystonia, high temperature , hypotension and oxygen requirement as a result of shock. Parameters in repeat bloods were suggestive of hypernatremia, AKI and metabolic acidosis. Creatinine Kinase was highly elevated at 12998.Differential diagnoses at this time included sepsis, Rhabdomyolysis from Intrathecal Baclofen Pump device failure and malignant Hyperthermia. |He was started on broad spectrum antibiotics and antifungals. However his clinical condition continued to worsen requiring him to be transferred to PICU for intubation and ventilation and Inotrope support. CK continued to show upward trend. He was reviewed by Neurosurgical team in PICU and kinked catheter was revealed by investigation. He was treated with hyper hydration, alkalization of urine and Baclofen pump was repositioned. Patient recovered well and was finally discharged from hospital.

Intrathecal Baclofen is increasingly being used as a very effective therapy for reducing spasticity in patients with cerebral palsy, spinal cord injury and Multiple Sclerosis. |Intrathecal route has the benefits of reduced central side effects like somnolence and nausea and less amount of medication as compared to oral dose.

Source: NeuroscienceNews.com image is for illustrative purposes only.

Intrathecal Pump Devices are associated with mechanical complications sometimes resulting in severe morbidly and mortality. Pump failure can result in minor problems like mild agitation, CSF leakage but also severe dystonia and Rhabdomyoslysis as in our case. Paediatricians should have good knowledge of different types of Intrathecal device related complications. Treatment wise, reinsertion or reposition of device as per Neurosurgical advice would help in prompt recovery of patients. Oral Baclofen might not be effective for the reason of downregulation of GABAB receptors in spinal nerves as a result of chronic exposure to intrathecal Baclofen. While waiting for Neurosurgical assessment, Benzodiazepines should be main lines of therapy for severe dystonia .

BAPIOAC18-25

Adult Onset Still's Disease

Sahil Bhagat, Ravi Potdar

Abstract

Adult-onset Still's disease is a systemic inflammatory disease of unknown etiology, characterized by fever, arthritis, evanescent rash and extremely high serum ferritin levels. This case is important, as Adult Onset Still's Disease is one of the under diagnosed causes of PUO. There are certain clues in the history and examination like the classical rash and its appearance during febrile episodes along with extremely high serum ferritin levels that should alert the clinician towards possibility of Adult onset Still's disease.

This report describes a 40-year-old lady presented with fever, arthritis, evanescent rash, leukocytosis and hyperferritinemia. She was diagnosed to have AOSD based on Yamaguchi criteria after exclusion of other potential diagnosis. She was treated with NSAIDs and oral glucocorticoid and responded well with symptomatic improvement.

BAPIOAC18-26

Midbrain Diameter Measurements On High-Resolution Computer Tomography Scans To Aid Diagnosis Of Progressive Supranuclear Palsy

Siri Potluri (Cardiff University), **Chris Thomas** (University Hospital Wales)
Biju Mohamed(University Hospital Wales), **Stefan Schwarz** (University Hospital Wales)
Chee Ghan (University Hospital Wales
siripotluri@live.com

Objectives

To establish whether high-resolution computer tomography (CT) scans can aid the diagnosis of progressive supranuclear palsy (PSP), and multiple system atrophy (MSA).

Background

The differential diagnosis of atypical movement disorders like PSP and MSA vs other Parkinsonian disorders remains a challenge. Structural brain atrophy related to MSA and PSP is usually assessed using MRI. Recent improvements in CT scanning allows for detailed multi-planer image reconstruction, similar to MRI.

Methods

CT scans of patients with four diagnoses: PSP (n=13), MSA (n=6), Parkinson's disease (PD: n=20; control), and essential tremor (ET: n=20; control) were retrospectively reviewed at a University teaching Hospital in South Wales, UK. CT scans (0.625mm isotropic voxel resolution) were reviewed using multi-planar reformat software. Two neuroradiology consultants, blinded to clinical information, carried out measurements: a) midbrain diameter (mid-sagittal), b) pontine diameter, c) long-axis pons and d) middle cerebellar peduncle (MCP) width to assess for structural changes linked to PSP and MSA..

Results

Average midbrain diameter was significantly reduced in PSP (9.06mm ± 1.02mm) when compared with ET (11.89mm ± 0.91mm) and PD (11.79mm ± 0.84mm) [figure 2]. Receiver operating characteristic (ROC) analysis of midbrain measurements to differentiate between PSP and controls showed excellent sensitivity (Sn=92-100%) and specificity (Sp=80-98%) using cut-off values of 10.35mm-11.00mm. Similar analysis of midbrain measurements to differentiate between PSP and MSA gave a Sn of 77% and Sp of 66% at 10.00mm. Both MSA (15.40mm ± 2.43mm) and PSP (14.78mm ± 1.86mm) showed a significant reduction in MCP width when compared with controls ($p<0.05$). Intra and inter-rater analysis of midbrain measurements gave an intraclass correlation coefficient (ICC) > 0.7. Similar analysis of the pons gave an ICC of 0.55.

Conclusions

Our results show promise for the use of CT scans to aid diagnosis of PSP, especially when assessing midbrain atrophy. Loss of MCP width may be useful in the diagnosis of MSA, however, the Sn and Sp is lower and our study is limited by a small sample size (n=6). Overall, CT scans may not be a replacement of the gold-standard, MRI, but may be useful in guiding a differential diagnosis in patients with or without structural changes on CT.