

measured by multicolour flow cytometry. DC were identified as an HLA DR+, lineage- (CD3-,CD14-,CD16-,CD19-,CD34-) population. Expression of TLR 2, 4 and 5, β 7 and CCR 9, and CD40 were measured by multicolour flow cytometry. Cytokines were assessed by multiplex ELISA of biopsy supernatants. The t-test was used in statistical analysis.

Results There was a tendency for increased expression of claudin 2 (18.6% \pm 11.4% v 39.6% \pm 13.4%, $p = 0.3$). Lower levels in lamina propria DC expression of TLR4 (45.8% \pm 6.5% v 33.6% \pm 6.9%) and TLR 5 (35.5% \pm 12.2% v 23.3% \pm 11.5%) as well as β 7 expression (39.9% \pm 7.6% v 31.9% \pm 4.5%) were not statistically significant. There were no changes in the levels of IL2, 4, 6, 10, TNF, IFN or IL17 in the supernatant of mucosal biopsies before or 4 weeks after FMT. However, a rise in IL10 (9.1pg/ml \pm 1.2 v 12.5pg/ml \pm 2.9, $p = 0.2$) was noted following FMT.

Conclusion There were no significant alterations in epithelial tight junction expression or immunological factors studied following FMT. In chronic refractory pouchitis, faecal transplantation may not be effective in altering the aberrant immunological response.

Disclosure of Interest None Declared

OC-094 TGF BETA1 MEDIATED EMT IN CACO2BBE GUT CELLS

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Introduction Crohn's Disease is a chronic autoimmune condition characterised by abdominal pain and diarrhoea. 80% of patients will require surgery and half of these will be as a result of stricture formation. Strictures occur as a result of mesenchymal cell proliferation and deposition of extracellular matrix.

Epithelial-mesenchymal transition (EMT) is a novel mechanism theorised to contribute to gut fibrosis and is a potential target to prevent stricture formation. EMT has been noted in vivo and in animal gut models. However, it has been previously shown that CaCo2 cells are non-responsive to TGF β 1, the principle mediator of EMT. EMT has not been investigated in the CaCo2 BBE cells.

Aims

1. To determine the cell receptor and signalling phenotype of CaCo2 BBE cells
2. To establish EMT in CaCo2 BBE cells

Methods Cell culture

-CaCo2 BBE cells were grown in DMEM and 10% FBS on plastic wells to 100% confluency and allowed to differentiate.

CaCo2 BBE cell phenotype

-Western blotting and immunofluorescence was performed to according to manufacturer protocols to analyse the phenotype of CaCo2 BBE Cells.

TGF-beta mediated EMT

-Cells were exposed to a 1 hour and 4 day treatment with TGF beta.

Results Cell phenotype

Zo1 and E. Cadherin were expressed on the cell membrane. Alpha-SMA was expressed in the cell nuclei.

Intracellularly, vimentin was not expressed. E. Cadherin and zo1 were constitutively expressed.

Cell Signalling

In response to a 1 hour treatment with TGF beta 0.8ng/ml, 2.5ng/ml, 7.5ng/ml, an increase in p-SMAD2 was noted.

Response to TGF-beta

Following a 4 day treatment with TGF beta (2.5ng/ml), no change in expression of alpha-SMA, E.cadherin, Vimentin was observed by Western Blot or Immunofluorescence.

Conclusion EMT has been theorised to play a central role in stricture formation in Crohn's disease. However, this mechanism in human gut cells has only demonstrated by one author.

This project has demonstrated that whilst CaCo2 BBE cells are able to respond to TGF β by increased phosphorylation of SMAD2, we were not able to definitively demonstrate EMT.

Disclosure of Interest None Declared

Poster presentation I

Education and training

PTU-001 REFEEDING SYNDROME: IS OUR KNOWLEDGE DEFICIENT?

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Introduction The 2006 NICE guidelines on "Nutrition support in adults" recommend screening and identification of patients at risk of refeeding syndrome (RS). Despite the implementation of local hospital policies, RS still occurs. This may, in part, be due to a lack of awareness amongst clinicians responsible for at risk patients. We aimed to assess the knowledge and awareness of RS amongst medical doctors in our Trust.

Methods We conducted a questionnaire survey of doctors' practices between April and August 2008. In total 68 doctors, working in medical specialities, from FY1 to Consultants, were surveyed.

Results The overall response rate was 40 (59%). Only 10% were unaware of RS (all FY doctors). However, only 35% were aware of the importance of correcting electrolyte imbalance when commencing enteral feeding. 30% would not monitor electrolytes daily with 25% of the respondents unaware of the important electrolytes to monitor. Although 90% of respondents recognised thiamine as important supplementation, only 20% indicated they would prescribe this to all at risk patients. Only 58% stated they would provide Vitamin B Co-strong and only 63% multivitamins or trace element supplements.

Conclusion RS is potentially fatal. It is essential that clinicians are aware and able to identify at risk patients. This survey highlights that, although many clinicians are familiar with RS and its effects, there is a lack of awareness regarding the NICE guidelines and practice aimed at its prevention in those patients at high risk. Most

Abstract PTU-001 Table

	Grade				
	Consultants	Registrars	Specialist Trainees	Foundation Year Doctors	Total Number (%)
Number involved in the medical rota	15	10	15	28	68
Response Rate (%)	7 (46)	5 (50)	10 (67)	18 (64)	40 (59)
aware of RS (%)	7 (100)	5 (100)	10 (100)	16 (80)	36 (90)
correct any electrolyte abnormalities alongside enteral feeding (%)	2 (29)	1 (20)	8 (80)	3 (17)	14 (35)
prescribe thiamine (%)	0	1 (20)	4 (40)	3 (17)	8 (20)
prescribe Vitamin B Compound (%) Multivitamins (%)	2 (29) 6 (86)	2 (40) 2 (40)	6 (60) 4 (40)	13 (72) 13 (72)	23 (58) 25 (63)

strikingly, 65% of the doctors surveyed did not consider starting enteral feed prior to or alongside correcting any electrolyte imbalances. Delaying the onset of enteral feed may put patients at greater risk of malnutrition. Further education and training about RS are necessary for all grades, particularly junior doctors.

Disclosure of Interest None Declared

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PTU-002 LARGE VOLUME PARACENTESIS (LVP) CAN BE SAFELY PERFORMED BY JUNIOR DOCTORS WITHOUT ULTRASOUND GUIDANCE

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Introduction The introduction of the European Working Time Directive has led to concerns about reduction in exposure to practical procedures for junior doctors¹.

Ultrasound is now considered essential for pleural aspiration and chest drain insertion². Its use for LVP has also been suggested³.

Our aim was to assess the safety of LVP performed at our centre according to the clinical grade of the operator.

Methods We identified patients who had undergone LVP at our hospital during a 12 month period from October 2010 by reviewing the admission book of our department and by reviewing a list of all the ascitic fluid samples sent to our microbiology department. Case notes for these patients were reviewed and data were collected on patient demographics, method of insertion (blind vs. ultrasound guided), grade of operator, adequacy of albumin replacement and the occurrence of any complications.

Results 56 LVP were performed on 28 patients.

53 drains were successfully inserted blindly, 3 required ultrasound guidance.

2 drains were inserted by consultants (both ultrasound guided) and 9 by registrars. 15 were inserted by core training doctors (1 procedure was supervised) and 28 by foundation doctors (19 supervised).

Ascites was sent for white cell count after 53 (95%) procedures.

No major procedure related complications occurred; 1 patient required a stitch for a minor cutaneous bleed after drain removal.

6 received < 6g albumin per litre of ascites drained. 3 LVP were carried out with no albumin replacement, in 2 of these the drain had been inserted under ultrasound guidance. For 2 procedures (performed on surgical wards) the drain was not removed after 6 hours.

Conclusion LVP can be safely performed without ultrasound guidance by adequately trained or supervised junior doctors. Some failings occurred with regard to albumin replacement, timely drain removal and request for ascitic white cell count. However, none of these would have been prevented by performing drain insertion under ultrasound guidance. Patients who had their drain inserted under ultrasound guidance were in fact more likely to receive sub-optimal post-procedure care.

Protocols are required for the management of ascitic drains and clear communication with nursing staff is essential.

Disclosure of Interest None Declared

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PTU-003 PARACENTESIS: UK TRAINEES' PRACTICE, EXPERIENCE AND ATTITUDES

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Introduction Abdominal paracentesis is considered a relatively safe procedure¹ but serious life threatening complications are known to occur² and practise guidelines often differ between centres. Moreover, in many European countries gastroenterologists are trained in the use of abdominal ultrasound and utilise this when inserting paracentesis catheters.

Aim :To obtain a snapshot of current UK trainee practise and experience of paracentesis and its complications.

Methods A cross sectional survey of current UK gastroenterology trainees was conducted over a 3 week period (Dec 2012-Jan 2013).

Results 88 trainees completed the survey. 75% (76/88) of respondents have more than 3 yrs' experience in gastroenterology at registrar level. 42% (37/88) report having performed or supervised > 100 procedures and a further 42% have performed > 50 procedures. 28.7% (26/88) have witnessed serious complications; 14.9% (13/88) report significant haemorrhage requiring blood transfusion, 16.1% (14/88) have encountered bowel perforation and 9%(6/88) attribute a patient's death to a paracentesis. Only 10.2% (9/88) of trainees routinely take informed written consent. 22.7% (20/88) state that their unit has no formal consent policy for paracentesis. 63% (48/88) of trainees exclusively use suprapubic 'Bonnano' catheters despite the fact that this product is unlicensed for use as a paracentesis catheter.

The majority of trainees (78.4%) estimate a failure rate requiring ultrasound guided catheter placement of < 10%. However, 23.9% (21/88) state that when this is required patients routinely wait longer than 2 days. 73.9% (65/88) report that radiology colleagues are unwilling to insert catheters in patients with INR > 1.5 without administration of fresh frozen plasma. 80.7% (71/88) of trainees believe training in abdominal ultrasonography should be part of the gastroenterology curriculum and 62.5% (55/88) feel that this would improve the safety and efficiency of paracentesis.

Conclusion The number of UK trainees reporting serious adverse events due to paracentesis is higher than expected. It is therefore of concern that few trainees are taking written consent for this procedure. The majority of trainees are still using the unlicensed 'Bonnano' catheter despite the availability of licenced products such as the 'Safe-T-Centesis' and 'Neo-Hydro' drainage kits. The majority of UK gastroenterology trainees express a desire to be trained in abdominal ultrasonography and believe this would improve the safety of paracentesis.

Disclosure of Interest None Declared

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PTU-004 THE USE OF A "MOODLE" VIRTUAL LEARNING ENVIRONMENT (VLE) IN GASTROENTEROLOGY TRAINING

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Introduction The East Midlands Healthcare Workforce Deanery launched a VLE pilot in 2009 and subsequently rolled out the "Moodle" based platform to all Postgraduate schools. Some schools have used the VLE as an information repository only, but The School of Gastroenterology South was keen to exploit the full potential by developing interactive activities and evaluating their acceptability to trainees.