

Abstract PTH-124 Table 1

	Short bowel (%)	Motility disorder (%)	Re-transplant (%)	Desmoids (%)	Other (%)	Total
2006	1 (100)					1
2007		1 (50)			1 (50)	2
2008	1 (30)			2 (70)		3
2009	3 (60)		1 (20)		1 (20)	5
2010	5 (83)		1 (17)			6
2011	6 (75)				2 (25)	8
2012	2 (33)		1 (17)	1 (17)	2 (33)	6
2013	8 (50)	3 (19)	1 (6)	1 (6)	3 (19)	16

Introduction Small bowel transplantation (SBT) was first performed in the UK in Cambridge in 1991. Recipients now undergo small bowel (SBT), liver and small bowel (LSBT), modified multivisceral (MMVT – small bowel, stomach, pancreas, no liver) and multivisceral (MVT – intestine, stomach, pancreas and liver) transplantation. Cambridge is the only UK centre offering MVT in adults.

The main indications for referral to a transplant centre are:

1. Irreversible intestinal failure plus life threatening complications of parenteral nutrition (PN).

2. Extensive surgery requiring partial or complete evisceration.

Methods Prospective data was collected from all patients who underwent intestinal and multivisceral transplantation at Addenbrooke's Hospital between 2003 and 2013. All patients are discussed and indications for transplantation agreed prior to listing at NASIT (National Adult Small Intestinal Transplant forum).

Results 47 transplants were performed on 43 patients; 4 procedures (9%) were re-transplantation for a primary non-functioning graft (2/4) or acute rejection (2/4). The indications for transplant are presented below:

Sixteen transplants were performed in 2013 - MVT (57%), SBT (31%), LSB (6%) and MMVT (6%). 50% of these were due to short bowel - arterial ischaemia (50%), Crohn's (26%), venous ischaemia (12%) and other short bowel (12%). Colon is now routinely included in the graft to aid fluid balance and does not preclude endoscopic surveillance for rejection.

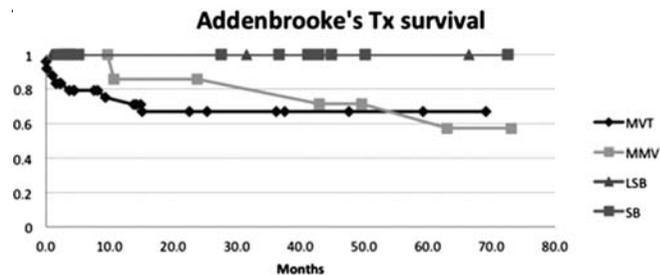
Conclusion The number of small bowel and multivisceral transplants performed over the last 10 years has increased, and more than doubled in 2013. Short bowel remains the commonest indication for transplantation. Historically this was mainly due to Crohn's disease however in 2013, it was mainly due to ischaemia; this trend was reflected worldwide. In our cohort, an increase in acute arterial thromboses causing coeliac/mesenteric ischaemia resulted in 3 recipients being listed urgently for MVT. There has also been an increase in the number of patients referred with portal vein thromboses extending into the superior mesenteric vein, precluding liver transplant alone.

Disclosure of Interest None Declared.

PTH-125 SURVIVAL FOLLOWING INTESTINAL AND MULTIVISCERAL TRANSPLANTATION AT ADDENBROOKE'S HOSPITAL, CAMBRIDGE, UK

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10.1136/gutjnl-2014-307263.571



Abstract PTH-125 Figure 1

Introduction Small intestinal transplantation (SBT) was first undertaken in the UK in Cambridge in 1991. Since the introduction of new immunosuppressive agents around the millennium, results have improved and we present our experience over the last 10 years. Since 2003, 47 transplants have been performed on 43 patients. Grafts include small bowel or small bowel/colon (SBT), liver and small bowel (LSBT), modified multivisceral (MMVT – small bowel, stomach, pancreas, no liver) and multivisceral (MVT – intestine, stomach, pancreas and liver) transplantation. Cambridge is the only UK centre offering MVT in adults.

Methods A review of all patients who underwent small intestine and multivisceral transplantation at Addenbrooke's Hospital between 2003 and 2013. Kaplan-Meier survival data are shown for each group of organs transplanted.

Results Five year survival for all patients transplanted is 77%. Survival curves for each organ group transplanted is graphed below:

Conclusion Five year survival in our patients transplanted since 2003 is 100% for SBT and LSBT and 65% for MVT, compared with international registry survival figures of 59% (SBT and LSBT combined) and 22% respectively.

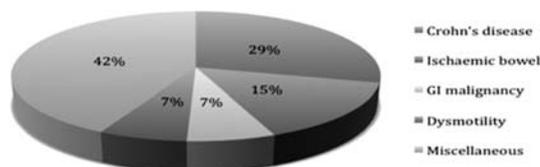
In recent years we have also experienced an increase in the number of urgent transplants performed and these patients are often critically unwell at the time of surgery. Our centre undertakes a relatively large number of procedures and this, coupled with a particular focus on multidisciplinary team working, may account in part for our favourable survival figures.

Disclosure of Interest None Declared.

PTH-126 ASSESSMENT OF CARDIOVASCULAR RISK OF PATIENTS ON HOME PARENTERAL NUTRITION

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10.1136/gutjnl-2014-307263.572



Abstract PTH-126 Figure 1

Introduction Prognostic factors in patients on home parenteral nutrition (HPN) are primarily thought to be related to the underlying disease.¹ To the best of our knowledge, there is no data so far pertaining to long-term cardiovascular disease (CVD) risk in these patients. We aimed to review our cohort of HPN patients to assess their 10-year CVD risk using the validated QRisk2 score² and to explore possible associations between HPN and CVD.

Methods We conducted a *retrospective observational study* of patients on HPN using the Leeds HPN database. We included all patients on parenteral nutrition (PN) and parenteral fluids (PF). Further relevant data such as smoking history, blood pressure, etc. were collected at outpatient clinics and their respective general practitioners. Data were entered into an online calculator to obtain QRisk2 scores and analysed using MicrosoftTM Excel. We also reviewed the indication for HPN and assessed their association with CVD risk.

Results A total of 73 patients were included in this study. Their mean age was 53.12 years (range 19 to 83 years) with male:female ratio of 40:60. 78.08% patients were on PN and 21.91% on PF. Indications for HPN are summarised in the pie chart below. QRisk2 score of $\geq 20\%$ (classed as 'high risk' for CVD) was noted in 15.06% patients. Of the patients with high CVD risk, ischaemic bowel was the underlying indication for HPN in 36.36%, Crohn's disease in 18.18%, GI malignancy in 9.09% and miscellaneous indications in 36.36% (including dumping syndrome, enterocutaneous fistula, refractory coeliac disease and diverticular perforation).

Conclusion No study has so far assessed the possibility of a link between HPN and CVD risk. From our pilot retrospective study, 15% patients on HPN were found to have a high 10-year CVD risk. This could potentially have an impact on the overall outcome of this subgroup of chronically ill patients, which needs to be evaluated further. More than a third of patients with high QRisk2 had had ischaemic bowel. Limitations of our study are its retrospective nature and smaller numbers. It is not clear whether the type and volume of HPN could have any impact on their long-term CVD risk. Future research should perhaps focus on further exploring the possible link between CVD and HPN, in the form of a large prospective trial of patients on HPN.

REFERENCES

- 1 Staun *et al.* – ESPEN guidelines on Parenteral Nutrition: Home Parenteral Nutrition in adult patients. *Clin Nutr* 2009 Aug; 28(4):467–79
- 2 Predicting cardiovascular risk in England and Wales: prospective derivation and validation of QRisk2. *BMJ* 2008;336:1475–82

Disclosure of Interest None Declared.

PTH-127 NUTRITIONAL STATUS AFTER INTESTINAL AND MULTIVISCERAL TRANSPLANT

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10.1136/gutjnl-2014-307263.573

Introduction There is limited data on nutritional outcomes post intestinal transplantation in adults. This cohort of patients will inevitably be at high nutritional risk and undergoing major surgery is anticipated to have a further deleterious effect.

Methods Pre and post transplant anthropometric data and nutritional status of all patients undergoing intestinal or multivisceral transplantation from 2007 to 2013 who survived more than 30 days post transplant was collected prospectively. A dynamometer was used to assess grip strength in the non-dominant hand. Bone density was measured by dual x-ray absorptiometry (DEXA).

Results 42 patients have undergone transplant during the time period, full data is reported for 28 patients (Exclusions: 6 transplanted <3 months, 1 graft enterectomy, 4 died within 30 days of surgery, 3 no data). 15 patients received a Multivisceral transplant, 7 Modified Multivisceral and 6 Intestine only. Patients have been followed up for a median of 26 months, to December 2013 or death (n = 5).

The mean BMI of patients at the time of assessment was 21.7 (Standard Deviation (SD) 3.5). Post-transplant, parenteral nutrition (PN) was given for a median of 24 days (range 2–134), enteral nutrition (EN) was given for a median of 57.5 days (range 0–262). The mean maximum weight loss post transplant was 16.6% of pre-transplant weight (SD 7.65%). Over one third of patients lost 20% or more of their pre-transplant weight and only 5 patients have returned to or exceeded their previous weight, though all but one patient has gained weight from their nadir weight. Mean BMI at latest follow-up in survivors is 20.64 (SD 4.6).

The majority of patients (20/23 survivors, 87%) are maintained on an oral diet. 2 patients (8.7%) with an intact graft require PN and 1 patient (4.3%) requires parenteral fluids. One patient (4.3%) continues on EN.

Handgrip strength was measured pre and post transplant (median 17 months post, range 7–34) in 13 patients, 7 demonstrated an improvement, 2 were stable (<5% change) and 4 had worsened. 4/5 patients who were receiving long term PN pre-transplant and had serial DEXA scans showed significant improvements in bone density post transplant.

Conclusion The majority of patients post intestinal and multivisceral transplant have nutritional autonomy; only a small number require parenteral or enteral nutritional support. Improvements in bone density and muscle strength can be demonstrated post transplant. However, significant weight loss does occur in the post-operative period; this should be taken into consideration when patients are being listed and every attempt made to optimise pre transplant.

Disclosure of Interest None Declared.

PTH-128 SMALL BOWEL CANCER: A 20-YEAR SINGLE UK CENTRE EXPERIENCE

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10.1136/gutjnl-2014-307263.574

Introduction Small bowel cancer (SBC) is rare and accounts for 5% of all gastrointestinal (GI) malignancies despite the small bowel forming 75% of the GI tract.^[1] Typical non-specific symptoms lead to late diagnosis and poor prognosis. We aim to establish a better understanding of the natural history and genetic features of SBC.

Methods A regional UK cancer registry identified local SBC patients diagnosed from January 1991 to January 2011. We