statistically significant difference in risk factors for raised DL compar-
ing age, bowel resection, absence of ileo-caecal valve, abnormali-
ties on barium study and use of proton pump inhibitors. SBL was
significantly shorter (p = 0.001) in raised DL group (median 29.6%;
range 11.4–100) than in group without (median 100%; range 19.10–
100). Patients with <35% SBL had 77% sensitivity for developing
raised DL. Relationship to feed could not be analysed due to lack of
accurate information on patients’ carbohydrate intake. Response to
treatment was available in 12/25 and all had improvement in symp-
toms with fall in DL. Recurrence occurred in 48%.

Conclusion Children with IF due to <35% expected SBL, when
screened, have a 77% likelihood of having SBBO shown by raised
DL. Screening in at risk patients allows prompt detection and treat-
ment of SBBO. Recurrence is common necessitating prolonged anti-
biotic regimens.

G197(P) HEPATIC HAEMANGIOMA AND CONJUGATED
HYPERBILIRUBINEMIA – A CASE REPORT

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1ND Ruth, J Kirk, D Kelly. ‘Liver Unit, Birmingham Children’s Hospital, Birmingham, UK;
2Dept of Endocrinology, Birmingham Children’s Hospital, Birmingham, UK

Background Infantile hepatic haemangiomata, the most common
benign vascular tumour of the liver in childhood, presents within
the first months of life. 80% present in infancy and nearly half
have associated cutaneous hemangiomas. Other extrhepatic
lesions may also be present including pulmonary and cerebral
haemangiomata.

Subjects and Methods A term neonate presented with respira-
tory distress, unstable blood sugars and was small for gestational
age. She was referred to a liver unit for management of hepatic hae-
angioma.

Results We describe a neonate who presented with hepatic hae-
angioma, cardiac failure and conjugated hyperbilirubinemia
which was due to hypopituitarism. This combination of clinical
disease has not previously been reported. The diagnosis of hypo-
pituitarism was considered because the infant had low blood sug-
ars with prolonged conjugated jaundice during the initial
assessment and treatment. Although jaundice is associated with
large hepatic haemangiomata it is generally unconjugated unless
there is a degree of biliary obstruction associated with the size of
the haemangiomata. Following diagnosis of hypopituitarism, com-
meniment of replacement therapy with hydrocortisone and thy-
roxine resulted in resolution of symptoms and stabilisation of her
condition.

Conclusion This is an unusual presentation of hypopituitarism,
and could have been overlooked in view of the other pathology pres-
ent with adverse consequences for her future health and develop-
ment.

G198(P) PLASMA ARGinine LEVELS AND BLOOD GLUCOSE
CONTROL IN VERY PRETERM INFANTS RECEIVING TWO
DIFFERENT PARENTERAL NUTRITION REGIMENS

doi:10.1136/archdischild-2013-304107.210

1L Burgess, C Morgan, K Mayes, M Tan. ‘Department of Neonatology, Liverpool
Women’s Hospital, Liverpool, UK; 2Department of Clinical Chemistry, Alder Hey Chi-
ldren’s Hospital, Liverpool, UK; 3Department of Paediatrics, Alder Hey Children’s Hos-
pital, Liverpool, UK

Background and Introduction We have previously shown that
improving early protein intake is associated with a reduction in
insulin-treated hyperglycaemia in preterm infants <29 weeks gesta-
tion. The effect of amino acids (AA) on insulin secretion is well
described in preterm infants with arginine recognised as a potent
secretagogue. We hypothesised that low arginine levels would be
associated with an increase in insulin-treated hyperglycaemia and
higher mean daily blood glucose levels (day1–15) in infants born
<29 weeks gestation.

Methods We performed a secondary analysis on previous ran-
domised controlled trial data comparing hyperalimentation (H) and
control (C) regimens. The hyperalimentation regimen provided
20% more carbohydrate than the control regimen. Daily carbohy-
drate and protein intake data and mean daily blood glucose and
insulin use data from the first 15 days of life were stratified
according to high (highARG) or low (lowARG) arginine levels
on day 8–10 using a reference population based median plasma level
(57 micromol/l).

Results In group C, substratification identified 41 lowARG and 19
highARG infants. There were no differences in basic demographic
factors, carbohydrate or protein intake. Hyperglycaemia peaked on
day 5–10. Low arginine levels were associated higher mean daily
blood glucose levels (day 6–10) and more insulin treatment (Table 1;
group C). In group H, substratification identified 33 lowARG and 22
highARG infants. LowARG infants were of lower gestation and
birthweight (p <0.01) There were no differences in carbohydrate or
protein intake. Low arginine levels were associated higher mean
daily blood glucose levels (day 1–5, 6–10) and more insulin treat-
ment (Table 1; group H).

Conclusion Low plasma arginine levels in very preterm infants are
associated with poorer blood glucose control.

G199(P) USE OF FISH-OIL BASED INTRAVENOUS LIPID EMULSION
AS A RESCUE IN INFANTS WITH INTESTINAL FAILURE-
ASSOCIATED LIVER DISEASE WHO DEVELOP SEPSIS

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1HM Lee, A Hickey, M O’Meara, J Thompson, J Hind. ‘Paediatric Hepatology, King’s
College Hospital, London, UK; 2Paediatrics, King’s College Hospital, London, UK; 3Phar-
macy, King’s College Hospital, London, UK

Aims In infants with intestinal failure-associated liver disease
(IFALD), it is known that episodes of sepsis can be accompanied by
a significant deterioration in liver function. We hypothesised that
an intravenous lipid emulsion (ILE) comprised solely of fish oil, high
in omega-3 fatty acids, such as Omegaven®, may protect the liver in
these infants during episodes of sepsis. Our aim is to describe the
potential role for Omegaven® as a rescue therapy in infants with
sepsis and established IFALD.

Methods A mixed source ILE containing both omega-3 and
omega-6 fatty acids (SMOFlipid®) was used as first-line in infants at
high risk of IFALD. When infants with IFALD developed sepsis,
Omegaven® was used as the sole ILE for up to 14 days. A retrospec-
tive review of their case notes was conducted.

Results Omegaven® was well tolerated in all infants. 7 infants had
Omegaven® treatment during a 14-month period (August
2011-October 2012). Median birth weight was 1000g (range 527–
1870). Median gestation at birth was 30 weeks (range 24–34). Of
the 7 patients, 2 had gastrochisis and 5 had necrotising enterocolitis
(NEC). One patient with gastrochisis developed NEC. 2 patients
were late transfers at 4–5 months of age from other hospitals with
severe and progressive IFALD. Both subsequently died. Median age
at start of Omegaven® was 63 days (range 7–189). 3 patients did not

Abstract G198(P) Table 1 Mean (SE) blood glucose (mmol/l; 5 day
time periods) and insulin use (total days, d1–15)

<table>
<thead>
<tr>
<th>Group</th>
<th>d1–5(C)</th>
<th>d6–10(C)</th>
<th>d11–15(C)</th>
<th>Insulin d1–5(H)</th>
<th>d6–10(H)</th>
<th>d11–15(H)</th>
<th>Insulin</th>
</tr>
</thead>
<tbody>
<tr>
<td>lowARG</td>
<td>6.9(0.3)</td>
<td>8.6(0.4)</td>
<td>7.1(0.4)</td>
<td>110</td>
<td>8.2(0.4)</td>
<td>9.0(0.4)</td>
<td>7.6(0.4)</td>
</tr>
<tr>
<td>highARG</td>
<td>6.6(0.6)</td>
<td>7.3(0.4)</td>
<td>6.0(0.3)</td>
<td>30</td>
<td>6.7(0.4)</td>
<td>8.0(0.3)</td>
<td>6.6(0.4)</td>
</tr>
</tbody>
</table>

p value 0.58 <0.05 0.11 <0.01 0.02 0.11

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A89
G198(P) Plasma Arginine Levels and Blood Glucose Control in Very Preterm Infants Receiving Two Different Parenteral Nutrition Regimens

L Burgess, C Morgan, K Mayes and M Tan

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