and severity of NEC were found to be significantly higher in prema-
ture infants born to preeclamptic mothers. Also, NEC developed
significantly earlier in preeclamptic mother infants and duration of
NEC was also found to be significantly longer in these infants.

283 THE ROLE OF PERITONEAL DRAINAGE IN BELL’S STAGE 2
OF NECROTIZING ENTEROCOLITIS

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Introduction Necrotizing enterocolitis (NEC) has become the
most common perinatal gastrointestinal emergency.
In literature there is an ongoing discussion on which surgical
approach is the most efficient to maximise patients’ survival: lapa-
roscopy or percutaneous drainage in case of intestinal perforation.
The aim of this study is to identify the preventive role of the
peritoneal drain.

Materials and Methods Between September 2007 and September
2011 a prospective study was carried out at our Hospital.
Informed consent were obtained by parents before treatment;
Inclusion criteria were created.
Group A: placement of abdominal drainage in stage 2;
Group B: surgical treatment only with perforation.

Efficacy of early treatment (absence of subsequent intestinal per-
foration) was the primary end point; Survival at one month after
drainage placement, Hospitalization, Mortality and Morbidity were
considered for analysis.

Results 43 infants with stage II NEC were observed. At the end of
the study the results shows that: 16 patients were treated with pre-
ventive peritoneal drain; 4 of these patients (25%) underwent sur-
gery for advanced NEC (intestinal perforation). Of the other 27
patients, 10 patients (37%) developed advanced NEC, with intesti-
nal perforation. (p<0.05) in each group Patients with advanced NEC
showed longer time of meconium evacuation if compared to the
others (mean 5 vs. 2 days, p<0.05).
Only 25% of patients treated with PPD underwent laparotomy
for bowel perforation (p<0.05).

Conclusions The use of peritoneal drain in stage II NEC seems to
be a safe alternative and treatment for these patients.

284 OPIATE ADMINISTRATION TO PRETERM INFANTS - A RISK
FACTOR FOR NECROTISING ENTEROCOLITIS?

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Background and Aims Opiates like morphine and fentanyl are
commonly used for sedation in the NICU. There are reports impli-
cating early opiate exposure as a risk factor for NEC in preterm
infants. We aimed to investigate if exposure to opiates in the first
week of life was a risk factor for subsequent NEC in preterm infants
in our NICU.

Methods Cases of NEC (Bell Stage 2) in infants < 32 weeks gesta-
tion age (GA) over a 3-year period (Jan 2008-Dec 2010) were identi-
fied from the NICU database. A case-control study was performed by
pairing each infant with NEC to a random control, matched for
year of birth, GA (±1 week) and birthweight (BW ± 20%).
Total exposure to opiates (morphine and fentanyl) between days
1 and 7 was tabulated from medical records and the database. Two-
tailed Fisher’s exact test was used to calculate the risk.

Results 27 infants with definite NEC were identified with mean
GA (±SD) of 27.2(±2.1) weeks and BW of 998 (±348) g. Controls were
matched with mean (±SD) GA of 27.3 (±2.2) weeks and BW of
972(±346) g. Exposure to opiates was not different between NEC
and controls (P = 0.63; Odds Ratio (95% CI) of 0.73 (0.28–1.91).
Median (range) daily opiate over the first week in NEC infants
(morphine dose equivalent) was 14.3 (0–259) µg/kg/day or approx.
0.6 (0–11) µg/kg/hour.

Conclusions Early opiate exposure did not appear to be a signifi-
cant risk factor for NEC in our population.

285 CAN MEASUREMENT OF INTRAVESICAL PRESSURE
BE USED FOR THE DIAGNOSIS AND FOLLOW UP OF
NECROTIZING ENTEROCOLITIS?

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Background and Aims Abdominal compartment syndrome refers
to multiorgan failure secondary to increased intraabdominal pres-
sure and circulatory failure. Early diagnosis and treatment of this
clinical syndrome resulting with high mortality in children is possible
via intravesical pressure (IVP)measurements. Data on IVP is
limited in newborns with increased abdominal pressure due to dis-
ases like necrotizing enterocolitis (NEC). We aimed to investigate
the predictive value of consecutive IVP measurements for diagnosis
and outcome of NEC.

Methods IVP was measured twice daily for 10 days in 61 prema-
ure infants below 1500 grams. Measurements of infants with and
without NEC were compared.

Results Infants were grouped as;
Group 1: without NEC,
Group 2: NEC medically treated,
Group 3: operated for NEC.

Group 1 had lower IVP values compared to infants with NEC
(p=0.001). Group 2 and 3 had similar IVP values (p=0.155). A 10%
increase in the consecutive IVP measurements was valuable for pre-
dicting NEC. Infants who died due to NEC had higher IVP values
compared to surviving infants with NEC (p=0.043).

Conclusion IVP measurements may be helpful for the diagnosis of
NEC. Mortality due to NEC in premature infants may also be pre-
dicted with high IVP values.

286 LOW HEMATOCRIT LEVELS IS COMMON IN PREMATURE
INFANTS THAT DEVELOP NECROTIZING ENTEROCOLITIS

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Introduction Necrotising enterocolitis (NEC) remains a serious
complication of prematurity. NEC is associated with multiple fac-
tors. Recently concerns have been raised that transfusion related
gut injury (TRAGI) may lead to NEC development.

Aim To identify if blood transfusion is implicated in the develop-
ment of NEC in our population.

Methods Data collection from infants treated for definite NEC in two
tertiary surgical neonatal units.

Results 49 infants developed NEC. GA: ≤24 wks 16%, 25–26 wks
16%, 27–29 wks 37%, 30–32 wks 19%, 33–35 wks 12%. Age of NEC:
≤7d: 7%, 8–14: 19%, >14d: 74%. The lowest hematocrit (HCT)
within 72 hours preceding NEC diagnosis was < 24%, 24–29
in 28% of cases, 30–35 in 36%, 36–42 in 11%, 17% had Hct >42. 6%