A16 (Poster 10)
EPIDURAL ROPIVACAINE VS. BUPIVACAINE: OBSTETRIC OUTCOMES
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bousie Univ., Halifax, NS, Canada Introduction: Early studies sug-
gested fewer instrumented vaginal deliveries with Rop compared to
Bup. The purpose of this prospective, multicenter, double-blind, ran-
domized, controlled study was to determine if epidural analgesia
with Rop led to more spontaneous vaginal deliveries (SVD) than Bup.
Methods: After IRB approval and written consent was obtained, term
nulliparous women, scheduled for induction of labor were randomized
to standard protocols for labor and anesthesia management using a
double-blind design. Epidural analgesia was initiated with either Rop
or Bup, using 15 mL of local anesthetic 0.1% plus Fent 5 mcg/ml and
was maintained with 0.08% local anesthetic plus Fent 2 mcg/ml delivered
via PCEA. (5 ml bolus, 5 ml/h infusion). Standardized solutions for
top-ups were used if required. Statistical analysis was by the student’s
t-test and two-tailed Fisher’s exact test. Results: 576 parturients were
recruited into the study; 560 were included in the analysis. Demo-
graphic data, reasons and methods for induction were not different
between groups. There were no differences in the need for top-ups or
total dose of local anesthetic received. A trend towards more SVD was
noted with Rop (50.5% vs. 45.9%), but this did not reach statistical
significance. There were no differences in the rates of instrumented
vaginal deliveries or 2nd stage cesarean section between groups.
Fewer 1st stage cesarean deliveries were seen in the Rop group (9.6%
vs. 16.5%). Discussion: In parturients at high risk for intervention
(e.g., multiparous induction patients), Rop may lead to more SVD and
fewer 1st stage cesarean sections than Bup. A larger study is needed to
confirm this suggestion.

A17 (Poster 11)
ANALGESIC MANAGEMENT OF INTRAUTERINE FETAL DEMISE
(REVISITED) Con, A.; McGovern, I.; Sashidharan, R. Anesthesiology,
The Royal London Hospital, London, United Kingdom Introduction:
The incidence of IUFD ranges from 5–7 per 1000 births in the UK(1).
Analgesic management of labour in IUFD has received very little at-
tention. With a lack of guidelines or standards, analgesia is provided on a
very ad-hoc basis(2). An audit conducted in our hospital confirmed this(3).
As per our recommendations, guidelines were set up which included early counselling and provision of patient controlled iv or epidural analgesia. Methods: We retrospectively reviewed the notes of confirmed IUFD in our unit prior to 1997 and following the setting up of guidelines (1999). We included fetal demise occurring at a gestation of greater than 20 weeks. Analgesic methods used were audited. Data were analysed using Student’s T and Chi-Squared tests.
P < 0.05(*) was considered significant. Results: There were 36 cases in 1997 (Group A) and 33 in 1999 (Group B). Groups were similar in maternal age, gestational age and parity. Discussion: In both groups the majority of patients required at least one form of analgesia. The use of PCA increased dramatically following the introduction of guidelines. All epidurals were PCA. The introduction of guidelines appears to have increased the usage of PCA in our hospital. Reference: 1. CESDI Annual Reports 1995-1998; Dept of Health, UK 2. Kim-Lo SH etal. Analgesic Management of IUFD. 30th Annual Meeting SOAP 1998: 55. 3. McGovern I etal Analgesic Management of IUFD. ESOS VI Congress 1999: 78.

A18 (Poster 12)
COMPARISON OF ESPOCAN® AND TUOHY NEEDLES FOR COMBINED SPINAL-EPIDURAL (CSE) ANALGESIA
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ter, Columbia University, NY. NY Introduction: Some anesthesiolo-
gists believe that intrathecal (IT) placement of the epidural catheter
may occur following CSE using a needle-through-needle technique.
To reduce this risk, epidural needles with separate spinal apertures
have been introduced. Although these needles may reduce IT catheter
placement, this has not been evaluated. The aim of this study was to
compare the efficacy and adverse events of a Tuohy versus a modified
epidural needle (Espocan® B. Braun, Bethlehem, PA) for CSE place-
ment. Methods: After IRB approval and informed consent, a prospec-
tive randomized study of parturients requesting labor analgesia was
performed. 85 parturients receiving CSE were enrolled; 43 received
analgesia via Espocan® (ES) and 42 via a Tuohy needle. IT or intravas-
cular (IV) catheter placement, paresthesia on introduction of the spinal
needle, failure to obtain CSF through the spinal needle on 1st attempt
following successful placement of the epidural needle, and uninten-
tional dural puncture were evaluated. Data analyses were performed
using two-sided Fisher’s exact test with a p < 0.05 considered signifi-
cant. Results: No IT catheters were seen and there were no significant
differences in the incidence of IV catheters or wet taps. Significant
differences were seen both in the incidence of paresthesias on spinal
needle insertion (16.5% vs. 42.8%; p < 0.01) and failure to obtain CSF on
1st attempt (11.6% vs. 30.9%; p < 0.01) for ES vs. Tuohy needles respec-
tively. Conclusions: These data confirm that IT catheter placement is
a very rare event, and does not support the routine use of more costly
special epidural needles. While the expected benefit of ES needles was
not observed, a significant reduction of paresthesia and an increase in
the ability to obtain CSF via spinal needle on 1st attempt was noted
with these needles.

A19 (Poster 13)
CAUSES OF LABOR EPIDURAL CATHETER REPLACEMENT
Vasudevan, A.; Hess, P.E.; Sont, A.S.; Sarna, M.C.; Pratt, S.D. Anesthesia, Beth Israel Deaconess Medical Center, Boston, MA We have found that
to 5% of labor epidural catheters at our institution are replaced
during labor. However, the indication for replacement varies among
cases. Failure of epidural analgesia may not be solely due to poor
catheter placement, but may be due to the underlying labor. We
investigated the indications for catheter replacement in our popula-
tion. Methods: We reviewed the records of 114 subjects with replaced
catheters. Data included dilatation at placement, obstetric outcome,
duration of analgesia, and replacement indication. Kruskal-Wallis and
Chi-square test were used for comparison. p < 0.05 was significant.
Results: Indications for replacement included: No initial block(N=28.9%); Missed segments(MS=20.2%); Inadequate continu-
os analgesia despite established level(A=27.2%); Miscellaneous(MI=25.7%). MI included catheter migration and failure of an-
esthesia for cesarean delivery. Mean duration of analgesia(352 min.) and
vaginal delivery rate(75.8%) among MI were similar to the population
who did not require replacements. The MI and IA groups had longer
duration(571 min./857 min.) and lower vaginal delivery rates(69.6%/58.1%). Conclusion: This ongoing study identifies the common indica-
tions for epidural catheter replacement. Two of the indications
(MS/IA) were associated with longer labor and higher operative deliv-
ery rates. It is unclear whether the cause of analgesic failure in these
groups is the longer duration of use, or to the underlying difficult labor.