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MEDICAL VERSUS SURGICAL NEC – A 25-YEAR RETROSPECTIVE REVIEW

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Background:
Necrotizing enterocolitis (NEC) is one of the most common and devastating gastrointestinal diseases affecting newborns. However, surgeons and neonatologist continue to struggle to improve care and outcomes for these babies.

Objective:
The purpose of this project was to compare the short term outcomes for babies treated surgically versus babies treated medically for NEC.

Methods:
We conducted a retrospective chart review of infants diagnosed with NEC at HSC from 1991 to 2016. We abstracted demographic, maternal, perinatal and NEC management details into NEMO. The outcomes compared between medical and surgical babies were: mortality, length of stay (LOS), and times to full enteral (FEF) and full oral feeds (FOF). We used chi squared and student t-test with a p-value <0.05

Results:
A total of 367 charts were reviewed. 290 (79.0%) patients were managed medically and 77 (21.0%) were managed surgically. The 30-day mortality was 9(3.1%) for medical and 18 (23.38%) for surgical patients, ($p<0.0001$; RR=0.79; 95% CI [0.70-0.90]) The 60-day mortality was 13 (4.48%) for medical and 30 (38.96%) for surgical patients ($p<0.0001$; RR=0.63; 95% CI [0.53-0.77]). The 180-day mortality was 18 (6.21%) for medical and 34 (44.16%) for surgical ($p<0.0001$; RR=0.59; 95% CI [0.49-0.73]). The mean LOS in days was 61.39 (± 43.92) for medical patients and 103.44 (±53.02) for surgical patients ($p<0.0001$). Days to reach FEF after diagnosis was 20.68 (±15.72) and 47.05 (±32.47) for medical and surgical patients respectively ($p<0.0001$). Days to reach FOF after diagnosis was 35.36(±28.43) and 74.1(±37.65) for medical and surgical patients respectively ($p<0.0001$).

Conclusion:
We found that surgically managed NEC patients had worse short-term outcomes than medically managed NEC patients. This is consistent with other literature**. The next step is to compare long term outcomes for both these cohorts.