Table 1: Clinico-demographic data with the prenatal history as regard the final diagnosis

| Item | | Diagnosis | | | | | | |
|---------------------|---------|------------------|-------|------------------|-------|------------------|-------|----------|
| | | F.I N=92 | | NEC N=39 | | _ Total N=131 | | P-value |
| | | | | | | | | |
| Birth weight Kg | | 1.36 (0.86-1.90) | | 1.32 (0.79-1.80) | | 1.34 (0.79-1.90) | | 0.093 |
| Gestational age,wks | | 31 (27-32) | | 31 (25-32) | | 31 (25-32) | | 0.183 |
| Sex | Female | 40 | 43.5% | 23 | 59.0% | 63 | 48.1% | _ 0.105 |
| | Male | 52 | 56.5% | 16 | 41.0% | 68 | 51.9% | |
| Mode of delivery | CS | 81 | 88.0% | 32 | 82.1% | 113 | 86.3% | _ 0.362 |
| wiode of delivery | NVD | 11 | 12.0% | 7 | 17.9% | 18 | 13.7% | |
| Maternal history of | No | 79 | 85.9% | 34 | 87.2% | 113 | 86.3% | 0.842 |
| DM | Yes | 13 | 14.1% | 5 | 12.8% | 18 | 13.7% | |
| Maternal history of | No | 71 | 77.2% | 28 | 71.8% | 99 | 75.6% | _ 0.512 |
| HTN | Yes | 21 | 22.8% | 11 | 28.2% | 32 | 24.4% | |
| Maternal history of | No | 57 | 62.0% | 18 | 46.2% | 75 | 57.3% | _ 0.095 |
| PROM | Yes | 35 | 38.0% | 21 | 53.8% | 56 | 42.7% | |
| Nutritional history | NPO | 1 | 1.1% | 14 | 35.9% | 15 | 11.5% | <u>-</u> |
| | TPN | 13 | 14.1% | 19 | 48.7% | 32 | 24.4% | _ <0.001 |
| | Trophic | 48 | 52.2% | 4 | 10.3% | 52 | 39.7% | |
| | Breast | 30 | 32.6% | 2 | 5.1% | 32 | 24.4% | - |

While qualitative data were represented as numbers and percentages and compared using the Chi-square X2 test, quantitative data were reported as Median (range) and compared using the Mann Whitney test.

DM: diabetes mellitus, PROM: premature rupture of membranes

Table 2: Comparison between serial measurements of AMC as regard the final diagnosis

| | Diagnosis | | Total | | |
|---|-----------|-----------|-----------|---------|--|
| Item | F.I | NEC | 1000 | P-value | |
| | N=92 | N=39 | N=131 | | |
| AMC 1 st one on admission | 8 (0-20) | 10 (4-32) | 9 (0-32) | 0.090 | |
| AMC 2 nd one at start of FI | 10 (1-20) | 10 (4-30) | 10 (1-30) | 0.242 | |
| AMC 3 rd one from 3-5 days after development of FI | 10 (3-22) | 4 (2-21) | 10 (2-22) | 0.000 | |

All variables were presented as Median (range) and compared utilizing Mann Whitney test.

AMC: absolute monocytic count

Table 3: serial measures of the WCC, ANC, ALC, and AMC in the premature neonates

| All Neonate | 1 st one | 2 nd one | 3 rd one | P-value | |
|-------------|---------------------|--|---------------------|---------|--|
| | on admission | dmission at start of FI from 3-5 days af | | P-value | |
| WCC | 12.6 (2.4-66.5) | 13.6 (2.3-55.2) | 13.4 (3.3-52.5) | 0.117 | |
| ANC | 5.81 (0.92-40.50) | 6.61 (0.69-44.00) | 6.6 (0.429-28.1) | 0.316 | |
| ALC | 36.0 (4.0-91.0) | 35.0 (6.0-86.0) | 38 (8-85) | 0.725 | |
| AMC | 9 (0-32) | 10 (1-30) | 10 (2-22) | 0.723 | |

WCC: white cell count, ANC: absolute neutrophil count, ALC: absolute leucocytic count

AMC: absolute monocytic count

Table 4: Correlation between the AMC level on admission and other studied parameters in the premature neonates diagnosed with FI and NEC

| | AMC 1 st one on admission | | | | | | |
|--|--------------------------------------|---------|--------|---------|--|--|--|
| Itom | Diagnosis | | | | | | |
| Item | F.I | | NEC | | | | |
| | r | P-value | r | P-value | | | |
| Age | 0.033 | 0.757 | -0.230 | 0.158 | | | |
| Birth weight | 0.139 | 0.186 | 0.110 | 0.506 | | | |
| Gestational age, wks | 0.033 | 0.757 | 0.098 | 0.552 | | | |
| Apgar scores at 1 minute | 0.096 | 0.363 | -0.099 | 0.547 | | | |
| Apgar scores at and 5 minutes | 0.136 | 0.196 | 0.031 | 0.852 | | | |
| Apgar Scores at 10 minutes | 0.060 | 0.572 | 0.130 | 0.43 | | | |
| Ballard score, wks | 0.176 | 0.094 | 0.119 | 0.47 | | | |
| weight | 0.099 | 0.347 | 0.037 | 0.821 | | | |
| length | 0.213 | 0.42 | -0.037 | 0.823 | | | |
| skull circumference | 0.195 | 0.063 | -0.064 | 0.699 | | | |
| abdominal circumference | 0.154 | 0.143 | 0.221 | 0.176 | | | |
| chest circumference | 0.240 | 0.021 | 0.405 | 0.011 | | | |
| SBP | 0.130 | 0.218 | -0.376 | 0.018 | | | |
| DBP | 0.226 | 0.03 | -0.055 | 0.739 | | | |
| MAP | 0.223 | 0.033 | -0.055 | 0.738 | | | |
| respiratory rate | -0.111 | 0.291 | -0.073 | 0.659 | | | |
| heart rate | 0.067 | 0.528 | 0.082 | 0.618 | | | |
| WCC 1st one on admission | -0.177 | 0.092 | -0.125 | 0.448 | | | |
| WCC 2nd one at start of FI | -0.053 | 0.615 | -0.149 | 0.366 | | | |
| WCC 3 rd one from 3-5 days after FI | -0.043 | 0.684 | -0.285 | 0.079 | | | |
| ANC 1st one on admission | -0.214 | 0.041 | -0.191 | 0.245 | | | |
| ANC 2nd one at start of FI | -0.069 | 0.511 | -0.127 | 0.44 | | | |
| ANC 3rd one from 3-5 days after FI | -0.167 | 0.112 | -0.200 | 0.222 | | | |
| ALC 1st one on admission | -0.140 | 0.182 | -0.141 | 0.39 | | | |
| ALC 2nd one at start of FI | 0.050 | 0.636 | -0.080 | 0.63 | | | |
| ALC 3rd one from 3-5 days after FI | 0.140 | 0.184 | 0.153 | 0.354 | | | |
| AMC 2nd one at start of FI | 0.091 | 0.386 | 0.144 | 0.383 | | | |
| AMC 3rd one from 3-5 days after f FI | 0.094 | 0.373 | 0.247 | 0.13 | | | |
| CRP | -0.052 | 0.624 | 0.183 | 0.264 | | | |

r = Correlation Coefficient

WCC: white cell count, ANC: absolute neutrophil count, ALC: absolute leucocytic count AMC: absolute monocytic count