**OP 18: Impact of overcrowding on paediatric health problems in Chandigarh, India**

*Mettananda DSG, Mettananda KCD, ThakurJS, Kumar R*

*Postgraduate Institute of Medical Education and Research, Chandigarh, India*

Objective: To determine the relationship between overcrowding and acute respiratory infections (ART) and diarrhoea in children.

Design, setting and methods: A cross-sectional analytical study was conducted at the Urban Health Training Centre, Indira Colony, Chandigarh, India in December 2004. All children under the age of 2 years attending the immunization clinic were recruited into the study. An interviewer schedule was used to collect data. Overcrowding, ARI and diarrhoea were defined using standard WHO definitions. Results: Sixty children were recruited into the study. Mean age was 5.95 months. Thirty-three (55%) were boys. Forty-eight (80%) children belonged to the lowest social class. Thirty-five (58.3%) houses had only a single room and 39 (65%) households were overcrowded. Twenty-one (35%) children were exposed to passive smoking. Incidences of ARI and diarrhea during the past one month were 61.7% and 35% respectively. Children from overcrowded houses had significantly higher incidence of ARI compared to children from non-overcrowded houses (x~=4.5, p<0.05) but there was no such relationship with the incidence of diarrhoea (x2=l-3, p>0.05). There was no significant association between the incidence of ARI and passive smoking (x ^ 1.239, p>0.05).

Conclusion: Sixty-five percent of households in Indira Colony, Chandigarh are overcrowded. The study identified a significant association between overcrowding and the incidence of ARI but not with the incidence of diarrhoea.

**OP 19: Clinical characteristics and fate of neonates born before 34 weeks of gestation: a case-controlled study**

*M\_ettananda\_ DSG. Rajindrajith S, Adhihetty D, Goonewardena AR, Adikari AMC, Pannala WS, Devanarayana NM, Mettananda KCD Faculty of Medicine, University ofKelaniya*

Objectives: To describe and compare the socio-de mo graphic and clinical characteristics, problems and outcome of premature neonates born before 34 weeks of gestation.

Design, setting and methods: A case-controlled study was conducted at the special care baby unit (SCBU) and the university obstetric unit of North Colombo Teaching Hospital from January to December 2006. All neonates born before 34 weeks of gestation were recruited as cases and a randomly selected group of term neonates were recruited as controls into the study after obtaining maternal consent. Data were collected by interviewing mothers and using patient records,

Results: Seventy cases and an equal number of controls were recruited. 40(57.1%) cases and 30(42.9%) controls were males. Mean birth weight was 1.44(SD=0.46)kg for cases and 2.94(SD=0.35)kg for controls. Multiple pregnancy [OR-14.3, 95%CI=1.8-113.1] and monthly family income less than Rs.lO,000/= [OR=2.6, 95%CI:=l.l-5.8] carried a significantly higher risk of deliveries before 34 weeks. Increased risk was also detected in subjects with obstetric [OR=4.2, 95%CI=2.0-8.8)] and fetal [OR=11.0, 95%CI=3.6-33.6] complications. Maternal blood group, maternal education level and social class assessed by father's occupation did not have any association with deliveries before 34 weeks. Mean 1-minute APGAR was significantly lower in neonates born before 34 weeks [7.2(SD=2.9)] than controls [9.7(SD=0.5)J (p<0.001), and the same was true for the score at 5 minutes.

All cases were admitted to the SCBU and were kept in incubators. The stay in SCBU ranged from 1 to 110 days (mean 15.1, median 9.0 & mode 1,0 days). 37(53%) had jaundice whereas 45.7%, 28.6% and 24.3% had sepsis, surfactant deficient lung disease and apnoea respectively. 67(95.7%) neonates needed oxygen, 12.9% were ventilated and 80% were given antibiotics. Twelve (17.1%) died while the rest (82.9%) were discharged.

Conclusions: Multiple pregnancies, presence of maternal or fetal complications and low family income were associated with increased risk of deliveries before 34 weeks of gestation. Jaundice, sepsis, surfactant deficient lung disease and apnoea were the commonest problems in babies born before 34 weeks of gestation. Nearly one fifth of them died during the neonatal period.