

group made more positive statements about the child's illness.

**CONCLUSIONS:** Consistent and regular education through interactive teaching methods improves the quality of care for children with epilepsy.

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### **Classification and Risk Factors for Cerebral Palsy in the Korle Bu Teaching Hospital, Accra: A Case-Control Study**

**BACKGROUND AND OBJECTIVES:** Cerebral palsy (CP) is a lifelong neurodevelopmental condition caused by injury to the developing fetal or infant brain. In developed countries 75% to 80% of cases are as a result of prenatal brain injury. Data from developing countries are limited; however, a higher proportion of affected children may have perinatal or postnatal injury. The objectives were to classify children with CP attending a neurodevelopmental clinic in Accra into clinical subtypes, determine the prevalence of associated impairments, and identify risk factors for CP among the study population.

**METHODS:** Prenatal, perinatal, and postnatal events were compared between 142 children with CP and 142 age- and gender-matched controls. We assessed clinical subtypes by using the Surveillance of Cerebral Palsy in Europe classification system and evaluated associated impairments. Risk factors were expressed as odds ratios (ORs) with 95% confidence intervals, and a multivariate logistic regression model was used.

**RESULTS:** Bilateral spastic (60.6%) and dyskinetic CP (20.4%) were the most common clinical subtypes, followed by unilateral spastic CP (10.6%). The prevalence rates of epilepsy and visual and hearing impairments were 40.1%, 23.2%, and 9.9%, respectively. Factors associated with an elevated risk for CP were severe neonatal hyperbilirubinemia (OR = 43.94,  $P < .0001$ ), neonatal seizures (OR = 32.81,  $P = .001$ ), birth asphyxia (OR = 6.69,  $P = .027$ ), irregular menstrual cycle (OR = 4.58,  $P = .021$ ), prematurity (OR = 3.45,  $P = .008$ ), and neonatal sepsis (OR = 2.83,  $P = .020$ ).

**CONCLUSIONS:** The clinical spectrum of CP in this study cohort differs from that of developed countries with a high prevalence of dyskinetic CP. Severe neonatal hyperbilirubinemia resulting in dyskinetic CP was the most significant and preventable risk factor for CP in this study population.

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### **Comparison of Polythene Occlusive Skin Wrapping With Routine Cloth Wrapping in Reducing Heat Loss During Transportation in Preterm Neonates (<34 Weeks) After Delivery: Randomized Control Trial**

**BACKGROUND AND OBJECTIVE:** Preterm neonates are most vulnerable to hypothermia, especially in the first hour after birth, during which they are transported to the NICU. Transport incubators are not available in resource-poor settings, and temperature management remains a challenge. The goal of this study was to determine the efficiency of polyethylene occlusive skin wrapping versus routine cloth wrapping during intrahospital transportation after birth on the incidence of hypothermia in preterm neonates (<34 weeks) within 24 hours of life.

**METHODS:** Preterm neonates (<34 weeks) were randomized into groups receiving either polyethylene occlusive skin wrapping (plastic group) or routine cloth wrapping (control group). Axillary temperature was recorded by using a digital thermometer in degrees centigrade at baseline (just after resuscitation), every 5 minutes in the first hour, and at 2, 3, 4, 5, 6, 12, and 24 hours of life. Interim analysis is presented.

**RESULTS:** There were 50 neonates in the plastic group and 35 in the control group. A total of 54 (63.5%) were admitted to the NICU, 10 (11.8%) received intermediate care, and 21 (24.7%) received routine care. The mean  $\pm$  SD birth weight of the study population was 1663.76  $\pm$  393.49 g (minimum: 840 g; maximum: 2300 g). Forty-five (52.9%) infants required ventilator support. Mean temperature was significantly higher in the plastic group for most time intervals. The average temperature in the plastic group increased by 0.2 degree, and it decreased by 0.06 degree in the control group during intrahospital transfer. Good thermal control was achieved and maintained in ~10 to 15 minutes for the plastic group versus 35 to 40 minutes for the control group. The incidence of mild hypothermia (29 [82.9%] vs 29 [58.0%];  $P = .015$ ), as well as moderate hypothermia (27 [77.1%] vs 18 [36.0%];  $P < .001$ ), was higher in the control group. There was only 1 case of severe hypothermia, which occurred in the plastic group in a neonate weighing 840 g at birth.

**CONCLUSIONS:** Neonates wrapped in polyethylene occlusive covering achieved rapid thermal control and maintained that control compared with infants wrapped in cloths. They also had a decreased incidence of hypothermia for the initial 24 hours of life. Polyethylene occlusive skin wrapping is an inexpensive, effective, and feasible way of thermoregulation. Further research is needed to establish it at scale.

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