

**PREDUCTAL AND POSTDUCTAL
TRANSCUTANEOUS OXYGEN SATURATION
MEASUREMENTS IN PRETERM NEWBORNS
WITH HYALINE MEMBRANE DISEASE**

Thesis

**Submitted for the Partial Fulfillment of
the Master Degree in Pediatrics**

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﴿قَالَ كَلَّا إِنَّ مَعِيَ رَبِّي سَيَهْدِينِ﴾

[سورة الشعراء - آية ٦٣]



TO MY PARENTS

*Who gave everything
and took nothing*

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LIST OF ABBREVIATIONS

CPAP	Continuous positive airway pressure
DA	Ductus arteriosus
2,3- DPG	Diphosphoglycerate
ECMO	Extracorporeal membrane oxygenation
ETT	Endotracheal tube
FiO ₂	Fraction of inspired oxygen
Hb	Hemoglobin
Hb A	Adult hemoglobin
Hb F	Fetal hemoglobin
HMD	Hyaline membrane disease
IPPV	Intermittent positive pressure ventilation
KPa	Kilopascal
L/S	Lecith/ sphingomyelin
NEC	Necrotizing enterocolitis
PaO ₂	Arterial oxygen tension
P _A O ₂	Alveolar oxygen tension
P _A -aO ₂	Difference between alveolar and arterial oxygen tension
PACO ₂	Alveolar carbon dioxide tension
PAP	Pulmonary artery pressure

PCO ₂	Carbon dioxide tension
PDA	Patent ductus arteriosus
PEEP	Positive end expiratory pressure
PiO ₂	Inspired oxygen tension
PO ₂	Oxygen tension
PPHN	Presistent pulmonary hypertension of the newborn
Pt c O ₂	Transcutaneous oxygen tension
Pv O ₂	Mixed venous oxygen tension
RDS	Respiratory distress syndrome
ROP	Retinopathy of prematurity
SO ₂	Oxygen saturation
SP	Surfactant protein
St c O ₂	Transcutaneous oxygen saturation
VSD	Ventricular septal defect

***Introduction
and
Aim of the Work***