

Summary

- The neonatal patients are critical patients and they are in need of a special medical care , as they differ physiologically from the adult patients and this can affect the general health in these patient groups .
- These patients must be fully examined and investigated to make an accurate diagnosis before any surgical interference . Also , their general conditions should be assessed , paying an attention to any associated disease
- The surgical neonatal patient should be well stabilized preoperatively . Selection of a suitable anaesthesia for the neonatal patient should be done according to the surgical problem . Postoperative care of the neonate is very important and it includes care in ICU if needed , postoperative nutrition , therapies and prevention and management of any postoperative complication .
- Also , paying a special attention to fluid and eteclrolyte homeostasis , cardiovascular homeostasis and respiratory function , preoperatively , during the operation and postoperatively .
- Birth trauma (e.g. abdominal trauma , chest trauma, head trauma , genitourinary trauma or bone fractures may occur during delivery of the baby and that may require an emergency surgical interference .
- Surgery during the neonatal period consists largely of treatment of the congenital anomalies .
- The congenital anomalies of the respiratory system usually cause respiratory distress that require an emergency surgical interference .
- The upper airway anomalies that require an emergency surgical interference e.g. choanal atresia , macroglossia, intrinsic and extrinsic tumours .

- The lower airway anomalies that require an emergency surgical interference e.g. laryngeal atresia , laryngeal cleft , subglottic stenosis , vocal palsy , laryngomalacia tracheomalacia , bronchomalacia and bronchogenic cyst .
- The lung anomalies that require an emergency surgical interference e.g. congenital lobar emphysema , pulmonary sequestration and congenital cystic adenomatoid malformations .
- Pleural emergencies e.g. chylothorax , haemothorax pneumothorax .
- The diaphragmatic anomalies that require an emergency surgical interference e.g. congenital diaphragmatic hernia , diaphragmatic agenesis and eventration of the diaphragm .
- Alimentary tract surgical emergencies in the newborn are the most common problems that require surgical interference in the newborn and these are commonly caused by underlying congenital anomalies .
- Oesophageal emergencies e.g. oesophageal atresia with or without tracheo-oesophageal fistula , gastro-oesophageal reflux and oesophageal perforation
- Gastric emergencies e.g. congenital hypertrophic pyloric stenosis , pyloric atresia , antenatal diaphragm , gastric volvulus and gastric perforation .
- Intestinal obstruction is one of the most common causes of surgical emergencies in the neonates .
- Duodenal obstruction e.g. atresia , stenosis , web.
- Jejunoileal obstruction e.g. atresia , stenosis , web , malrotation with or without volvulus , meconium ileus or peritonitis , inguinal hernia , intussusception and Meckle's diverticulum .

- **Colorectal obstruction e.g. atresia , stenosis Hirschsprung's disease and anorectal anomalies idiopathic intestinal obstruction e.g. meconium or milk plug,necrotizing enterocolitis , hypoaganglionosis, pseudohirschsprung , infection , CNS disease and drugs .**
- **The anterior abdominal wall defects that may require an emergency surgical interference in the newborn e.g. omphalocele , gastroschisis , extrophy of the cloaca .**
- **Miscellaneous neonatal surgical emergencies , e.g. spina bifida , congenital obstructive uropathy and torsion of testis .**
- **The surgical techniques and plannings performed for a neonatal patient are not largely different from that performed for an adult patient with the same surgical problem e.g. bowel resection and reanastomosis for a gangarenous bowel , untwisting of a torsion testis and orchipexy , orchidectomy for gangnrenous testis , chest tube for haemothorax etc .**
- **With the development of the diagnostic procedures , advanced surgical techniques , and advanced neonatal ICUs , most neonates with life – threatening surgical problem can satisfactorily be managed by surgery in the neonatal period .**
- **The surgery may be immediately required after birth or later on , and it may even be done before the birth during the intrauterine life .**