



## CASE REPORT

### CASE REPORT – A RARE CASE OF A BABY BORN WITH INGUINAL HERNIA

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#### ABSTRACT

We hereby present to you a rare case in a 1 day old baby who presented to us with a right sided inguinal hernia. An inguinal hernia occurs when an intestinal loop or part of the omentum or genital organs passes into the scrotal cavity or labia through an incompletely obliterated processus vaginalis. Inguinal hernias are most common in preterm neonates, especially at 32-weeks gestation. The management of inguinal hernia in premature infants is slowly drifting from urgent exploration, surgery before discharge to readmission and elective surgery weighing the balance between risk of complications and anaesthesia. Advances in neonatal intensive care and improved survival of preterms have resurfaced the issue of dealing with such cases. Urgent surgery is indicated in patients with an akinetic dilated bowel loop (a sign of strangulation) or impaired testicular/ovarian perfusion. A baby born with inguinal hernia is a rare entity and no case has been reported in literature.

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## INTRODUCTION

Congenital anomaly of infancy and childhood includes indirect inguinal hernia with an incidence ranging from 0.8% to 4%, which is more prevalent in premature infants at 30%. One-third of all children with hernias present before 6 months of age, and most hernias occur in males, with a male to female ratio of 6:1 (Inguinal hernias and hydroceles in infancy and childhood, 2000). Few of these hernia show spontaneous regression (Oudesluys-Murphy, 2000); however, if the content of herniated sac is ovaries and/or intestinal structures, it reduces the chance of spontaneous regression, along with increasing the chance of incarceration (Inguinal hernia in female infants and children, 1958; Kapur, 1998). Hence, early diagnosis and appropriate intervention is required before an irreversible damage occurs to the herniated structure. Hernia is more frequently located on the right side because the right processus vaginalis closes later than the left. Physical examination is sufficient to enable diagnosis in most cases. Controversial issues in the management of inguinal hernia in premature infants, include timing of repair, the need for contralateral inguinal exploration and the minimum postconceptional age (PCA) for day surgery repair. Optimal timing for inguinal hernia repair (HR) in a premature infant in the neonatal

Intensive Care Unit (NICU) is still debated. Although some authors recommend early HR to prevent the risk of incarceration, others prefer delaying surgery until infants are ready to be discharged home (Misra, 2001).

## CASE REPORT

An 8 hours old male baby presented to our emergency department with swelling over the right inguinoscrotal region since birth. Baby was born at full term to G3L2P2A1 mother of a non-consanguineous marriage through a Lower Segment Caesarean Section (LSCS), indication being meconium stained liquor. Baby was haemodynamically stable at presentation and had passed urine as well as meconium before presentation to us. There was no history of vomiting. Mother was registered during her pregnancy and was on iron and folic acid supplements, with USG done twice in her gestational period, both scans showing normal findings according to gestational age. There was no contributory family history or any significant medical or surgical history to the mother. On examination, the baby was haemodynamically stable, irritable with good activity and tone. Systemic examination was normal. Per abdominal examination suggested normal findings. A right inguinoscrotal swelling was present, skin over the swelling being normal, reducible without much effort and there was reappearance on crying, palpation showed bowel as the content of the hernia.

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**Figure 1a and 1b – Clinical Photograph of the baby with right inguinoscrotal swelling**

There were no signs suggestive of any complication of hernia. Ultrasonographic examination of the swelling suggested a congenital hernia with bowel as the content with normal peristalsis and normal vascularity. As the patient was a full term child with adequate weight and no co-morbid conditions, we proceeded with surgery, i.e. herniotomy under general anaesthesia. There were no intra-operative anaesthesia or surgery related complications or post-operative complications.

## DISCUSSION

The processus vaginalis arises as an evagination of parietal peritoneum around the sixth month after conception. Depending on gender, the processus vaginalis is accompanied by testis or round ligament of the uterus and passes through the inguinal canal toward the scrotum or labium major (Khanna *et al.*, 2007).

The female counterpart of the processus vaginalis known as the canal of Nuck is relatively small and commonly disappears by 8 months of gestation (Shadbolt *et al.*, 2001). Hence, premature delivery before the closure of this canal increasing the risk of the development of an inguinal hernia (Auld, 2000). Inguinal hernias are more common on the right side, occurring in approximately 60% of the cases, with 30% on the left side, and 10% bilateral (Ziegler, 1994). The studies of Rowe *et al.*, (1968) and Grosfeld *et al.*(?) reported an incidence of 55%-60% of the inguinal hernias on the right side, that of 25% on the left side and that of 15% bilaterally. Inguinal hernias may contain the intestines, omentum, fluid testes, ovaries, fallopian tubes, uterus, and urinary bladder (Ming *et al.*, 2001). Our patient was a 1 day old male with inguinal hernia on the right side, which is a very rare presentation.

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