Local inflammatory reactivation of a previous BCG inoculation site is a specific and early manifestation of KD (3). This phenomenon was hypothetically ascribed to cross-reactivity between mycobacterial Heat Shock Protein (HSP) 65 and its human homologue HSP 63(4). Subsequently, studies have revealed that T-cells obtained from the peripheral blood of KD patients, recognize an epitope from HSP 65 and cross-reacted with the corresponding peptide sequence of human HSP 63(3,4). Immunofluorescence studies on biopsy specimen from skin lesions and reactivated BCG Inoculation site in KD patients have also shown striking similarities(6). These findings may suggest that cross-reactivity between specific epitopes of mycobacterial and human HSP could play a role in the development of the tissue damage characteristic of KD.

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Cystic Nephroma

A 13-month-old male child presented with asymptomatic left sided abdominal mass incidentally discovered by his mother. On examination, a 10 × 10 cm retroperitoneal mass was felt in the left upper abdomen. Abdominal ultrasonography revealed a multiloculated cystic retroperitoneal mass suggestive of hydatid cyst of the left kidney. CT scan revealed a well-defined circumscribed exophytic mass arising from outer border of left kidney (Fig. 1). The renal parenchyma was only minimally compressed; the pelvicalyceal system and function were normal.

Patient was managed by nephrectomy. Histopathological examination revealed multilocular lesion with definite epithelial lining of loculi. There was no solid tissue identified within the cystic tumor. Neither mature nephrons nor malignant blastemal cells were present within the septae of the cystic lesion. Loculi were neither communicating with each other, nor with renal pelvis.
Rest of the kidney was normal except for slight pressure atrophy. The histopathological diagnosis was Cystic Nephroma (CN). No adjunct therapy was administered. On follow-up, he is free of any recurrence one year and six months after the surgery.

CN is uncommon, non-heritable, unilateral, benign tumor that represents 2-3% of primary renal tumors in the pediatric age group(1). CN has a bimodal incidence with 50% of tumors presenting in children younger than 4 years of age(2). In this age group, boys predominate in a ratio of 2:1. The second peak incidence occurs in adults and unlike the pediatric cases, is usually seen in women.

CNs are commonly found incidentally on radiographic studies, but may present as an abdominal mass found on routine physical examination. The differential diagnosis of cystic nephroma include multicystic dysplastic kidney, a very necrotic or hemorrhagic Wilms’ tumor, clear cell sarcoma, or a cystic variant of mesoblastic nephroma. On ultrasound, CT and MRI, CN appears as an encapsulated multilocular cystic mass. In contrast enhanced CT scan, the septa may enhance but cysts remain low in intensity. Similarly, in MRI, gadolinium administration enhances septa but not the cysts(3).

Grossly, CN is characterized by a segmental, purely cystic-well circumscribed mass that may partially replace the renal parenchyma. It is characterized by multiple septations entirely of differentiated tissue without blastemal elements. Cystic nephroma and cystic partially differentiating nephroblastoma (CPDN)/solid nephroblastoma (Wilms’ tumor) represent benign and malignant ends of a spectrum respectively, however exact relationship between these entities is not known and is rather controversial. Differentiation between these entities has a prognostic and diagnostic significance. CN is the most differentiated form in the spectrum. To label a lesion to be a cystic nephroma, presence of blastemal cells and poorly differentiated cells should be ruled out.

Cystic nephroma is a benign lesion, which is cured by nephrectomy. Recurrence has occurred following incomplete excision by partial nephrectomy(4). If partial nephrectomy is considered, frozen section is indicated to exclude cystic, partially differentiated nephroblastoma(5).

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Combined Esophageal Duplication Cyst with Bronchogenic Cyst

A 9-month-old male child born of non-consanguineous parentage presented with breathlessness, cough, cold and vomiting on and off for 4 months. The cardiovascular system was normal. Respiratory system revealed crepitations. Abdomen was soft without organomegaly. Chest X-ray showed opacity in the right upper zone.

Ultrasonogram revealed cystic lesion in the right upper chest with internal echoes. Barium swallow showed a mass lesion causing smooth indentation of the esophageal outline (Fig. 1). At surgery, a cyst was identified in the posterior mediastinum, which was para-esophageal in location extending into the superior mediastinum. After excision, clinical improvement was rapid and child is well 8 months later.

The 4 × 5 cm ovoid mass showed mucoid material on cut section. A unilocular cyst was seen with smooth inner wall. Microscopic sections showed esophageal duplication cyst lined by non-keratinizing squamous to cuboidal epithelium with goblet cells. The muscular wall showed distinct inner and outer muscularis propria. No ganglion cells were seen. The adjoining fibroconnective tissue showed a very tiny bronchogenic cyst lined by pseudostratified ciliated columnar epithelium to an attenuated epithelium. Wall showed only fibroconnective tissue with subjacent mucus glands and islands of cartilage. The bronchogenic cyst was only evident microscopically. There was no communication between the two cysts.

Fig. 1. Barium swallow study showing the smooth indentation of the esophagus along with the large spherical mass in the right upper mediastinal region.