Peritoneal Malignancy in Children: A Pictorial Review
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Introduction
Peritoneal malignancy can be seen as metastatic disease or as primary neoplasms of the peritoneum, such as mesothelioma. It is most commonly metastatic, usually after the neoplasm breaks through the organ capsule or through peritoneal spill at the time of surgery. Primary neoplasms of the peritoneum, such as mesothelioma, are exceptionally rare.

Rhabdomyosarcoma
Rhabdomyosarcoma is a soft tissue malignancy of childhood that is thought to arise from primitive mesenchymal cells. It accounts for 3% of all childhood malignancies. The disease has a peak incidence in the first 5 years of life and is more common in boys. The most common primary site of disease is the head and neck region. Other commonly involved locations are the small bowel mesentery (40%), the sigmoid mesocolon (20%) and the subdiaphragmatic area (10%). Rhabdomyosarcoma can spread by direct extension and hematogenous dissemination.

Wilms Tumor
Wilms tumor is a renal blastoma that is thought to arise from metanephrogenic blastema. It accounts for 7% of all childhood malignancies. The disease has a peak incidence in the first 5 years of life and is more common in boys. The most common primary site of disease is the kidney, although it can also arise from the bladder, soft tissue, liver, and testes. Wilms tumor can spread by direct extension and hematogenous dissemination.

Immature Teratoma / Germ Cell Tumor
Teratomas are germ cell tumors that are composed of elements from one or more of the embryonic germ layers. They contain tissues from all three germ layers and are considered a tumor of low malignant potential. These tumors can recur. In a review of the literature, recurrence was documented in 8/71 cases.

Dendritic Cell Sarcoma
Dendritic cell sarcoma is a rare pediatric malignancy that is thought to arise from dendritic cells. It accounts for less than 1% of all childhood malignancies. The disease has a peak incidence in the fifth to seventh decades of life and is rare in childhood. In contrast to adult cases, there is no evidence of a causal factor in children.

Donohue Cell Sarcoma of Pancreas
Donohue cell sarcoma is a rare pediatric malignancy that is thought to arise from neural crest cells. It accounts for less than 1% of all childhood malignancies. The disease has a peak incidence in the fifth to seventh decades of life and is rare in childhood. In contrast to adult cases, there is no evidence of a causal factor in children.

Wolffian Tumors
Wolffian tumors are embryonal remnants that are composed of elements from the mesonephric system. They are considered a tumor of low malignant potential. These tumors can recur. In a review of the literature, recurrence was documented in 8/71 cases.

References