MDCT Presentation Of Neuroblastoma: A Multisystem Pictorial Review Of Imaging Features

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Background.
Neuroblastoma is the most common extracranial solid tumor of childhood and comprises up to 50 % of malignancies among infants. It may originate anywhere along the sympathetic ganglion chain. The most common site of origin is within the abdomen, either in an adrenal gland (40 %) or in a paraspinal ganglion (25 %). Other sites are the paraspinal area of the thorax (15 %), the neck (5 %) and the pelvis (5 %) [1].

Objective.
This pictorial review of multidetector computed tomography images of patients diagnosed with neuroblastoma shall provide multisystem imaging features that depict and aid in the diagnosis of this condition.

Materials and Methods.
Multidetector computed tomographic (MDCT) imaging of different organ systems of children with neuroblastoma identified in a pediatric radiology and pathology database were included, totalling 6 patients. Imaging features were reviewed, analysed and set in this pictorial review.

Results.
MDCT allows comprehensive evaluation of neuroblastoma in terms of morphologic features and extent as well as presence of metastasis. On MDCT, a neuroblastoma would commonly present as large, lobulated, heterogeneous solid mass that displaces adjacent organs, like the kidneys, being inferiorly displaced. Calcifications are commonly seen 80% of the time. Bone remains the most common site of metastasis then the liver, lungs, and central nervous system [2].

Conclusion.
MDCT imaging features of neuroblastoma affects multiple systems of the pediatric body. The mass is beyond abdominal imaging and sites of affectation also involve bones, liver, lungs, and central nervous system.