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The Neuroblastic Dichotomy: A Case Study of Malignant and Benign Outcomes

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Ganglioneuroma and neuroblastoma are neuroblastic tumors originating from the sympathetic nervous system. Neuroblastoma is the most common extracranial solid malignancy in children under two years, whereas ganglioneuroma is a benign tumor composed of mature ganglion cells and schwannian stroma, often discovered incidentally. Both highlight the importance of early detection, accurate diagnosis, and multidisciplinary management. *Case 1:* A 39-year-old female presented with abdominal pain for one month. Examination revealed a soft, tender, diffuse abdominal mass spanning the epigastric, umbilical, suprapubic, and lumbar regions. Serum CA125 and CEA were normal. Ultrasound showed a heterogeneous left para-aortic mass (8.9 × 3.8 cm). Contrast-enhanced CT revealed a well-defined lesion (81 × 60 mm) posterior to the pancreas. Surgical excision followed by histopathology demonstrated spindle cells with mature ganglion cells, consistent with ganglioneuroma.*Case 2:* A 1-month-old male infant presented with abdominal distention, feed intolerance, failure to thrive, vomiting, and loose green stools. Examination revealed a soft, tender, distended abdomen. Ultrasound demonstrated a large, heterogeneous hyperechoic lesion. Differential diagnoses included germ cell tumor and sacrococcygeal teratoma. CT showed a presacral mass with cystic areas. Surgical excision and histopathology identified a malignant small round cell tumor. Immunohistochemistry confirmed neuroblastoma. Neuroblastoma and ganglioneuroma represent two ends of the neural crest tumor spectrum, with neuroblastoma being aggressive and ganglioneuroma benign. These cases highlight the heterogeneity of neuroblastic tumors, the critical role of histopathology and immunohistochemistry in diagnosis, and the significance of risk stratification to guide treatment and predict prognosis. Despite neuroblastoma's malignant potential, favorable outcomes are possible with early detection and tailored multidisciplinary care.

Keywords: GN: Ganglioneuroma, NB: Neuroblastoma ,CA 125: Cancer antigen 125, CEA: Carcinoembryonic antigen.

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