Life-threatening Airway Obstruction: An Unusual Presentation of a Cervical Mass During Infancy

Y Lau, CH Li, KY Tsui, ACW Lee

Abstract
Cervical masses during infancy are almost always benign. The more common differential diagnoses include congenital malformations of the vascular or lymphatic systems, remnants of the branchial arches, sternocleidomastoid tumour of infancy, and lymphadenitis. Benign tumours such as dermoid cysts or teratomas are uncommon, and malignant lesions are extremely rare. The authors reported a 4-month-old infant who presented with respiratory arrest secondary to upper airway obstruction caused by a cervical neuroblastoma. The child was successfully resuscitated but required mechanical ventilation. Subsequent surgical excision without chemotherapy led to complete clinical, radiological, and biochemical remission. Neck masses during early childhood should be handled with care and malignant lesions should be distinguished from the more common but self-limiting causes.

Key words
Airway obstruction; Congenital muscular torticollis; Head and neck neoplasms; Horner syndrome; Neuroblastoma

Introduction
Neck masses are common paediatric problems with a wide variety of pathologies. During infancy, the great majority of cases are due to malformations of the head and neck structure or congenital muscular torticollis (sternocleidomastoid tumours of infancy). The conditions are usually benign and most are recognisable on clinical grounds. However, malignant conditions, though rare, may mimic these lesions. The following case report is to remind of the need for careful assessment and follow-up in any infant who presents with an apparently benign mass in the cervical region. The differential diagnoses of infantile neck masses will be presented, followed by a discussion of the management of cervical neuroblastoma in young children.

Case Report
A 4-month-old baby girl was referred to our hospital for a gradually enlarging mass on the right side of the neck. She was born prematurely at 33 weeks of gestation from a pregnancy that was complicated by severe pre-eclampsia. The birth weight was 1.57 kg. The stay in the Special Care Baby Unit was uneventful and she was discharged at one month of age.

Her parents noticed a nodule over the right side of the neck when she was two months old. There was no abnormal head posture and the baby appeared well and thriving. The mass was thought to be a sign of congenital muscular torticollis and the child was treated with physiotherapy. However, the mass grew gradually in size and the baby subsequently developed noisy breathing and feeding difficulty. An ultrasonography showed a solid right