International Journal of Pediatric Otorhinolaryngology (2005) 69, 267–270

International Journal of Pediatric Otorhinolaryngology

www.elsevier.com/locate/ijporl

CASE REPORT

Rhabdomyosarcoma presenting as an anterior neck mass and possible thyroid malignancy in a seven-month-old

Alexis D. Furze[a], David A. Lehman[b], Soham Roy[b,*]

[a]*University of Miami School of Medicine, P.O. Box 016960 (R-59) Miami, FL 33101, USA*
[b]*Department of Otolaryngology-Head and Neck Surgery, University of Miami, 900 NW 17th Street, Ground Floor, Miami, FL 33136 USA*

Received 16 July 2004; received in revised form 10 September 2004; accepted 12 September 2004

KEYWORDS
Rhabdomyosarcoma;
Head and neck neoplasms;
Thyroid neoplasms;
Thyroid gland;
Infant

Summary A seven-month-old male presented with a one month history of an enlarging left neck mass and worsening inspiratory stridor. Upon excision of the mass, pathologic examination was consistent with embryonal rhabdomyosarcoma (RMS). Preoperative imaging and intraoperative exploration were consistent with tumor replacing the left lobe of the thyroid. No cases of either anterior neck rhabdomyosarcoma or thyroid rhabdomyosarcoma have been explicitly described in the literature. The distinction between the two malignancies becomes important when considering prognosis and treatment protocols.

1. Introduction

Although rhabdomyosarcoma (RMS) is the most common soft-tissue sarcoma in children, this tumor only accounts for approximately 250 cases per year in the United States [1,2]. In addition, approximately 40% of pediatric RMS cases occur in the head and neck region [2]. Within this region, the most common sites of primary tumor include the orbit or periorbital region, naso-oropharynx, middle ear or mastoid region, paranasal sinuses, and other parameningeal sites [3]. Although the literature makes reference to cases of RMS in the general neck region, no case of RMS presenting as an anterior neck mass in a pediatric patient has been explicitly described to date. We present a case of rhabdomyosarcoma presenting as a mass in the anterior neck, involving the thyroid gland of a seven-month-old patient.

2. Case report

A seven-month-old male presented to the pediatric otolaryngology clinic with a one month history of an enlarging left neck mass and progressively worsening inspiratory stridor. The mother denied any fever, pain, irritability, difficulty feeding, weight loss, cyanosis, or apneic episodes. The child had an otherwise unremarkable birth and past medical history. The patient's family history was significant for

* Corresponding author. Tel.: +1 305 326 6332; fax: +1 305 547 3670.
E-mail address: sroy2@med.miami.edu (S. Roy).

0165-5876/$ – see front matter
doi:10.1016/j.ijporl.2004.09.006

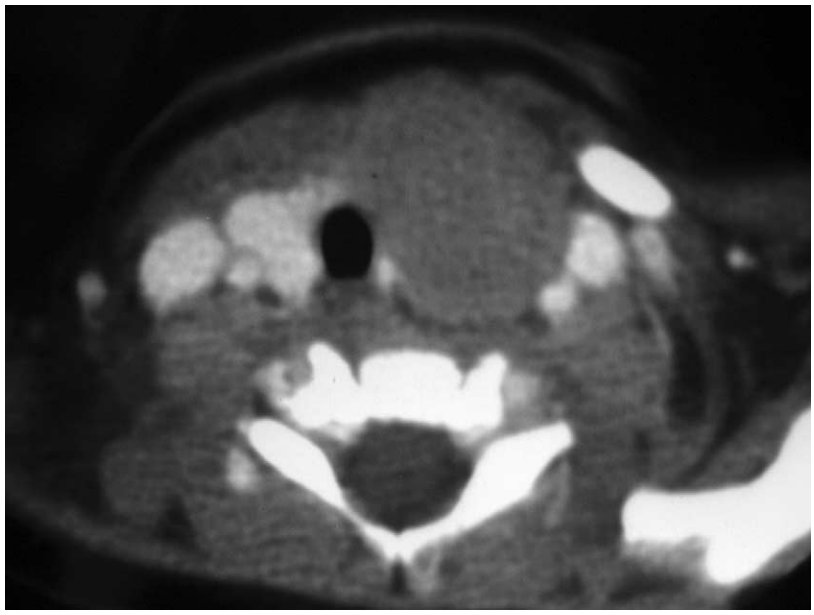

Fig. 1 CT scan of thyroid mass.

paternal papillary carcinoma of the thyroid. A complete head and neck examination was performed. Neck exam revealed a 3 cm × 4 cm smooth, firm mass medial and deep to the left sternocleidomastoid muscle at its inferior aspect, extending deep to the clavicle. Nasopharyngoscopy demonstrated left true vocal fold immobility and a submucosal mass obliterating the left piriform sinus. Fine needle aspiration was performed with multiple passes, all of which yielded non-diagnostic results. CT demonstrated a 4—5 cm mass in the left anterior neck emanating from the thyroid gland and extending into the anterior mediastinum, displacing the trachea and great vessels to the right (Fig. 1). MRI of the neck revealed a 4.5 cm × 2.2 cm × 2.5 cm mass emanating from the thyroid gland.

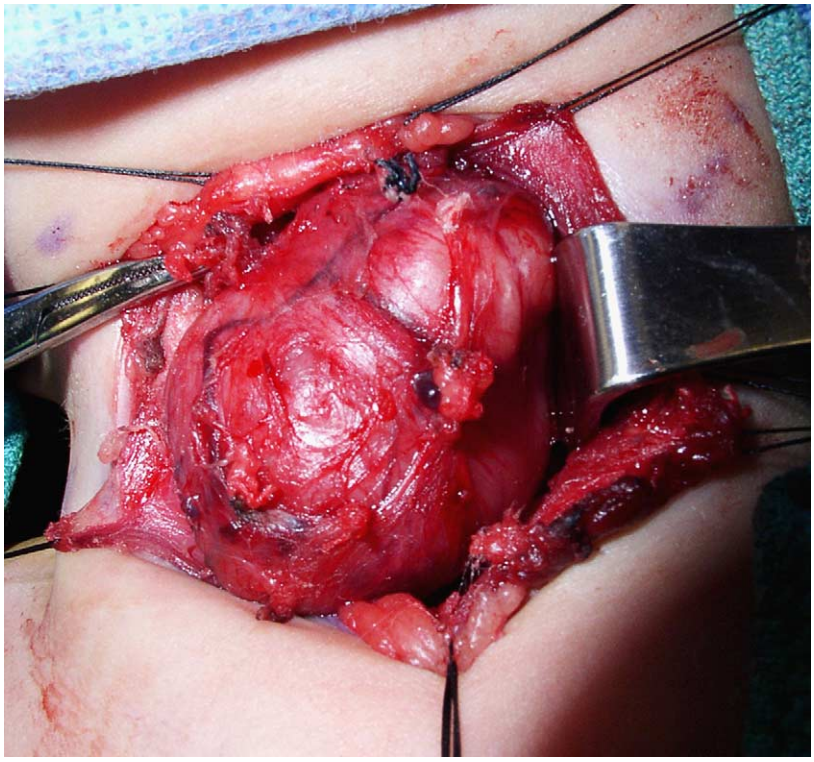

Fig. 2 Intraoperative exposure.