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A snotty nose: more than just a cold

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DESCRIPTION

A healthy 3-year-old girl presented with a 5-day history of right-sided cheek and eye swelling and pain, associated with right-sided green nasal discharge. Examination revealed diffuse erythematous swelling around the right cheek, jawline and eye. Oral antibiotics for suspected periorbital cellulitis were ineffective. Blood inflammatory markers and ultrasound of her neck and parotid glands were normal. She was discharged as having viral parotitis. Antibiotics and nasal drops were later restarted for clinical sinusitis; however, she showed no improvement, now having 3 weeks of right-sided facial swelling with thick green and intermittently bloody nasal discharge. Further history revealed possible squint, mastication pain and breathing difficulty through the right nostril.

Cranial imaging (figure 1) demonstrated a large central but predominantly right-sided nasopharyngeal tumour, extending into the ethmoid sinuses and orbits (with medial recti distortion), infratemporal fossa and pterygoid muscles and anterior and middle cranial fossae. There was accompanying skull base destruction.



Figure 1 MRI axial T2-TSE (turbo spin echo) image showing the tumour filling the posterior nasal passages and nasopharynx which erodes the anterior border of the clivus and extends into the anterior right middle cranial fossa. There is extension into the right orbit distorting the medial rectus muscle.

Staging and biopsy confirmed the diagnosis of non-metastatic parameningeal rhabdomyosarcoma (PM-RMS). Chemoradiotherapy ensued.

RMS is the most common type of childhood soft-tissue sarcoma, mainly affecting boys at 4–6 years of age. Approximately 20% of RMS are PM, involving sites around the meninges (eg, nasopharynx, middle ear).¹ Symptoms are variable and correspond to the disease site. Pain may coexist.

Diagnosing and treating PM-RMS is challenging as it is poorly visualised and can invade critical structures. Although the PM site previously carried an unfavourable prognosis, advances in multimodality management have improved childhood survival rates.^{2,3}

Learning points

- ▶ Clinicians should consider nasopharyngeal malignancy in persistent unilateral rhinorrhea, among other symptoms.
- ▶ Para-meningeal rhabdomyosarcoma may invade critical facial and intracranial structures and hence diagnosis should not be delayed.

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