CASE SERIES AND REPORTS

A rare case of embryonal rhabdomyosarcoma of the parapharyngeal space

Un raro caso di rabdiosarcoma embrionario dello spazio parafaringeo

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SUMMARY

A 24-year-old man was admitted to our Otolaryngology Department following a head and neck CT scan performed for cranial trauma that showed a bulky neoformation in the right parapharyngeal space. Magnetic resonance imaging confirmed the presence of an oval formation with sharp margins and colliquative areas of necrosis involving the right parapharyngeal space. The mass was completely excised by a latero-cervical approach. Based on histological features and immunohistochemical analysis, a diagnosis of embryonal rhabdomyosarcoma of the parapharyngeal space was made. The incidental detection at this site of an embryonal rhabdomyosarcoma has never been reported in adult males.

KEY WORDS: Parapharyngeal mass • Embryonal rhabdomyosarcoma • Sarcomas • Head and neck malignant tumours

RIASSUNTO

Un uomo di 24 anni giunse al nostro Dipartimento di Otorinolaringoiatria poiché una TC testa-collo eseguita per un trauma cranico evidenziava una voluminosa neoformazione dello spazio parafaringeo di destra. La risonanza magnetica nucleare confermava la presenza di una formazione ovale con margini netti e aree colliquative di necrosi, che interessava lo spazio parafaringeo di destra. La massa fu completamente escissa attraverso un approccio laterocervicale. Sulla base alle caratteristiche istologiche e dell’analisi immunohistochimica fu fatta la diagnosi di Rabdomiosarcoma Embrionario dello spazio parafaringeo. La diagnosi incidentale in questa sede di Rabdomiosarcomi Embrionari non è mai stata riportata in uomini adulti.

PAROLE CHIAVE: Massa parafaringea • Rabdomiosarcoma Embrionario • Sarcomi • Tumori maligni della testa e del collo

Case report

A 24-year-old man was admitted to our Department following for a CT scan of the head/neck without contrast medium, performed elsewhere following a cranial trauma, which showed the presence of a bulky mass in the right parapharyngeal space: it measured approximately 5 cm in the transversal diameter. The mass was indistinguishable from the surrounding head and neck structures due to the limitations of CT scan without contrast. A reduction in the hypopharyngeal space was just visible (Fig. 1).

The patient did not complain of any symptoms except for a slight right ear fullness. Oropharyngeal examination did not detect any pathological condition. Fibre optic endoscopy of the upper respiratory airways showed a slight bulging of the right lateral wall of the hypopharynx in the absence of laryngeal abnormalities. The mass was scarcely appreciable on head and neck palpation and no ipsilateral or contralateral cervical lymph nodes were present. Contrast-enhanced magnetic resonance (MRI) with T1- and T2-weighted sequences was immediately performed. MRI (Fig. 2, 3) confirmed the presence of an oval mass, measuring 6, 4 and 3 cm in the craniocaudal, transversal and anteroposterior diameters, respectively. The mass involved the right parapharyngeal space upward as far as the skull base, showed low and high signal intensity on T1- and T2-weighted sequences respectively. Central areas of colliquative necrosis were visible. We opted for surgical treatment, removing the mass by a laterocervical approach, without postoperative complications.

Histology of the excised mass demonstrated a highly cellular tumour composed of small-medium size undifferentiated cells with atypical and hyperchromatic, frequently nucleolated, nuclei and virtually indistinct cytoplasm (Fig. 4 a, b). Mitotic activity was prominent and necrosis was extensive. The neoplastic cells were immunoreactive for vimentin, desmin (Fig. 4 c), muscle specific antigen and, focally (rare cells), for myogenin (Fig. 4 d). Ki-67