

The mean BMI values of our study population are higher than the national standards published for children from affluent schools, the data in the Agarwal study was collected during the years of 1988-91. It thus seems that over the last decade or so the overall BMI of children is increasing suggesting a worrying trend of a whole adolescent population shift towards higher weights and BMI.

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Embryonal Rhabdomyosarcoma of Lower Lip

Rhabdomyosarcoma (RMS) is an aggressive malignant striated muscle neoplasm and accounts for 50% of all pediatric soft tissue sarcomas. Within the head and neck, common sites are orbit, paranasal sinuses and soft tissue of cheek and neck. Paraoral RMS is rarely reported(1,2). Tumors developing in a preexisting lesion are very rare(3,4). Here we describe a case of Embryonal Rhabdomyosarcoma arising from a congenital lesion involving the lip.

A 2½-year-old female child presented with history of a lower lip swelling since birth. The

lesion increased in size over 2 months. On physical examination a 1.5 × 1 cm lobulated lesion, with multiple, small raised, irregular flesh colored rugae was present on the lower lip. It was nontender, and nonerythematous (*Fig. 1*). No lesions were present on the mucosal surface and the mass did not cross the midline of face. Staging work up was done. Her hemogram, biochemistry, MRI of head, face, orbit and brain, bone marrow and bone scans were all normal.

The lesion was biopsied and histology reported as Embryonal Rhabdomyosarcoma, intimately associated with small nerve twigs. The tumor cells were strongly immunoreactive for desmin and small areas positive for S-100 and neuron specific enolase.



Fig.1. RMS of lower lip.

The patient was operated and surgical margins were free of tumor. She was started on adjuvant systemic chemotherapy containing vincristine, ifosfamide, actinomycin D (VAI). Current therapy for RMS is vincristine, cyclophosphamide and actinomycin D (VAC). The patient was on a study, which showed other regimens to be equipotent. The patient has completed chemotherapy and is in follow up for last 5 years and is in remission.

This young child had a preexisting benign lesion of the lower lip (cyst, hamartoma or amelanotic nevus) that transformed. There have been two reports of RMS arising from a pre existing lesion, the first, a case of a cutaneous melanotic nevus, and the second a cystic adenomatoid malformation of the lung (3,4).

Immunohistochemically, this tumor was strongly positive for desmin. S100, and neuron specific enolase (NSE) were positive focally, an usual finding in RMS. Fetal rhabdomyoma, a benign lesion found in the head and neck area of young children shows S 100 positivity. However the histology was not suggestive of rhabdomyoma. However

cutaneous RMS may show staining for neural elements and have a predilection for the face(5).

We obtained excellent results in both survival and cosmesis. The knowledge that benign cutaneous lesions may transform into RMS will help in early diagnosis and satisfactory treatment for any other affected children.

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