



Fig.1: **Left.** NeuN-immunonegative neurons in a pontine histological section of a SIDS victim dead at 2 months. **Right.** NeuN immunopositivity in an equivalent section of a control case (late fetal death -38 gestational weeks) for comparison - NeuN immunostaining. Magnification: 40×

chemical breathing-dependent components of blood and cerebrospinal fluid (e.g. pO₂, pCO₂, pH). The pathological involvement of the vagal-glossopharyngeal neuronal circuitry explains some lethal reflexogenic mechanism, quoted in the literature as “drive”, “death-feigning” and/or “Ondina’s course” reflexes. Moreover, parahypoglossal glossopharyngeal brainstem damage can promote suffocation by tongue hypotonia during supine sleep, especially if an abnormal reticular formation 4 impairs respiration and/or gastro-esophageal reflux goes into trachea. Overall the results obtained in the 12 cases of sudden death reported here, in agreement with those highlighted in our previous study^[2] performed on a very large survey of perinatal deaths (140 SIDS, 95 SIUDS and 78 controls), show the common congenital origin of SIUDS and SIDS and support the statement of the National Institute of Child Health and Human Development: “SIDS is a developmental disorder. It takes its origin from fetal development”. In the world, only Italy has a national law that orders “Regulations for Diagnostic Post Mortem Investigation in Victims of the SIDS and Unexpected Fetal Death”. This law can be an example for the other nations in the world, and we believe it should be known. The present paper is the first result of the application of the law. The province of Trento (North Italy) applies this law because it is an autonomous province. The use of NeuN immunohistochemistry is another new important marker in the study of this pathology.

Key words: SIDS; SIUDS; Autonomic Nervous System; Neuropathology; Environmental Risk Factors

References

1. Italian Law No. 31. Regulations for diagnostic post-mortem investigation in victims of sudden infant death syndrome (SIDS) and unexpected fetal death. *Official Gazette of the Italian Republic*, General Series 2006; 34:4.
2. Matturri L, Lavezzi AM. Unexplained stillbirth versus SIDS: common congenital diseases of the autonomic nervous system-pathology and nosology. *Early Hum Dev* 2011; 87(3):209-15.

Complex Odontomas Hampering Eruption of Permanent Tooth

Abdulla Mufeed*¹; Abdul Hafiz²; Ahammed Noufal³

¹Department of Oral Medicine; Radiology, Dental College, Perinthalamanna Malappuram Kerala, India, ² Department of Pediatric Dentistry, ³Department of Oral Pathology, Dental College, Perinthalamanna, India

Received: Dec 12, 2013; Accepted: Jul 10, 2014;
First Online Available: Jul 20, 2014

Eruption of deciduous teeth, their exfoliation followed by eruption of permanent dentition is an orderly sequential and age specific event^[1]. Significant deviations from accepted norms of eruption time are often observed. Most parents are anxious about delayed tooth eruption, as it is considered to be an important milestone during child’s development. Delayed tooth eruption might be the primary or sole manifestation of local or systemic pathology^[2]. The systemic conditions like

* **Corresponding Author; Address:** Department of Oral Medicine; Radiology, Dental College, Perinthalamanna Malappuram Kerala, India
E-mail: abmufid@yahoo.co.in

malnutrition, rickets, endocrinopathies, chemotherapy, cerebral palsy and low birth weight can lead to delayed tooth eruption.

Local factors delaying eruption may include presence of mucosal barriers, supernumerary teeth, odontogenic and non odontogenic tumors, local infections, injury and ankylosis of deciduous teeth.

A 12 year old boy referred with a complaint of missing right central incisor tooth. Examination of his upper jaw revealed that the central incisor tooth was unerupted and the deciduous counterpart was retained with mesial drifting of the lateral tooth creating an anesthetic appearance (Fig. 1). Radiographic examination showed presence of multiple circular and irregularly shaped radiopaque structures in anterior maxilla, overlapping the crown of unerupted permanent tooth (Fig. 2). Based on the diagnosis of complex odontoma, the area was surgically explored and the tumorous masses were removed. The gross examination and histological evaluation confirmed the diagnosis of complex odontoma. Patient is presently under observation as parents opted to wait and orthodontic extrusion is planned if no physiologic eruption took place in 6 months post operative period. Odontomas are *mixed odontogenic tumors*, since they are composed of both epithelial and mesenchymal tissues. However, biologically regarded as hamartomas rather than neoplasms^[3]. Most of the cases of odontomas are often undetected because they are clinically asymptomatic and nonaggressive. They are usually identified on routine radiographic examinations or during evaluation of delayed tooth eruption as in this case.

A thorough visual, manual and radiographic examination should be performed for all pediatric



Fig. 1: Intra oral view showing unerupted permanent incisor and drifting of adjacent permanent lateral incisor



Fig. 2: Radiograph showing presence of multiple radiopaque masses and retained permanent incisor

patients who present with clinical evidence of delayed eruption, missing or displaced tooth. Early identification and removal of odontomas help us to:

- a. Adopt less complex and invasive treatment
- b. Ensure better prognosis
- c. Avoid displacement or devitalization of adjacent tooth

After removal of the obstacle from the path of eruption, an impacted tooth either erupts spontaneously if it has conserved its eruptive force or orthodontic force is required to bring the tooth in normal position^[4].

Key words: Odontomas; Tooth Eruption; Incisor; Odontogenic Tumors

References

1. Pahkala R, Pahkala A, Laine T. Eruption pattern of permanent teeth in a rural community in northeastern Finland. *Acta Odontol Scand* 1991; 49(6):341-9.
2. Kochhar R, Richardson A. The chronology and sequence of eruption of human permanent teeth in Northern Ireland. *Int J Paediatr Dent* 1998; 8(4):243-52.
3. Zoremchhingi, Joseph T, Varma B, et al. A compound composite odontoma associated with unerupted permanent incisors. A case report. *J Indian Soc Ped Prev Dent* 2004; 22(3):114-7.
4. Das D, Misra J. Surgical management of impacted incisors in associate with supernumerary teeth: a combined case report of spontaneous eruption and orthodontic extrusion. *J Indian Soc Pedod Prev Dent* 2012; 30(4):329-32.