PEDIATRIC DENTISTRY/Copyright © 1989 by
The American Academy of Pediatric Dentistry
Volume 11, Number 1

Pediatric recurrent sialectasis: case report

Gladys N. Opinya, BDS, CAGS, MSD Benjamin Imalingat, MBChB, MMed

Abstract

A 2 1/2-year-old female presented to the Department of Paediatrics with a fever (38.2° C) and bilateral swelling of the parotid salivary glands. A month later, she presented with similar signs and symptoms. Three months later the patient had a third attack and was referred to the Paediatric Dental Department. A clinical examination and sialography showed a normal Stensen's duct. The parenchyma of the right parotid had a combination of punctate lesions (1-2 mm in diameter) and globular lesions (3 mm in diameter). In the left parotid there were punctate lesions approximately 1 mm in diameter. The patient was managed with antipyretics (acetaminophen) and penicillin.

This condition should be referred to as sialadenitis pediatrica as it presents as a clinical entity with signs and symptoms of swelling and pyrexia in the absence of sialography and histological findings. It is referred to as sialectasis after histological and sialographic observations detect lesions affecting the parenchyma of the salivary glands.

Parotid enlargement has been associated with inflammatory, neoplastic, metabolic, or degenerative processes. The most common inflammatory process affecting the parotid gland is mumps. Mumps is caused by the paramyxovirus which has an incubation period of 2 or 3 weeks. Exposure to mumps results in life-long immunity. Other viruses associated with inflammatory processes are echovirus and cytomegalovirus which may cause parotitis in immunologically incompetent children (Blatt 1966; Jones and Hiller 1969; Garvar 1974; Philips 1979; Wilson et al. 1980; Budnick 1987).

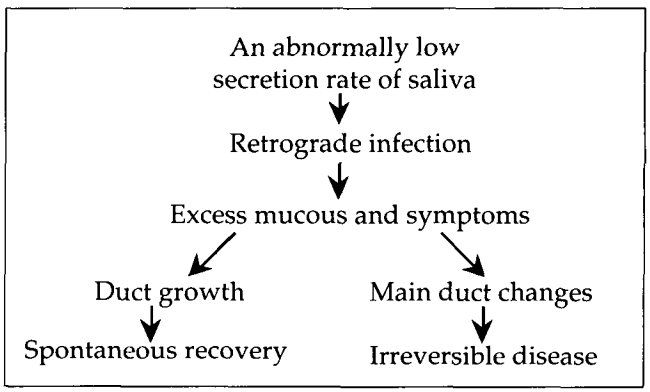
The etiology of recurrent parotitis in children remains obscure. A possible sequence of events is shown at right (Maynard 1965).

Maynard (1965) postulated that a reduced salivary secretion rate might be initiated by an autoimmune phenomenon, a developmental defect or a previous viral infection.

Case Report

A 2 1/2-year-old African female patient was referred from the Department of Paediatrics, Kenyatta National Hospital to the Paediatric Dental Department, University of Nairobi. She had bilateral swelling of the parotid salivary glands. The right parotid was more enlarged than the left. The patient first had presented to the paediatric unit when she was 2 years old. She had difficulty in eating and was febrile (38.2° C) with bilateral swelling of the parotid glands. She was small in stature and weighed about 10 kg. The mother reported that the child had a poor appetite and preferred to take milk in a feeding bottle. She weighed 3 kg at birth, the delivery was normal (spontaneous vertex delivery), and growth development was within normal limits for Kenyan children. The child lacked appetite from the age of 1 1/2 years. She was breast fed for 1 month after birth and then put on a breast milk substitute.

Clinical examination showed a soft palpable mass 10 cm in diameter on the right side of the parotid region. The swelling extended posteriorly beyond the posterior border of the mandible and behind the ear. Superiorly the swelling extended to the inferior border of the zygomatic arch and posterior-superiorly it was limited by the tragus of the right ear. The swelling on the left side was only 4 cm in diameter. No other pathology was observed on the face. There was no cervical, submandi-



bular, submental, or occipital lymphadenopathy. The hair color and texture were normal. Except for the second primary molars, all primary teeth had erupted, the gingival tissue had normal color, and there were no carious lesions. The orifices of the left and right Stensen's ducts were normal in size and appearance. The saliva was clear and serous when the parotid glands were milked.

Sialography

Bilateral parotid gland sialograms were performed using urograffin 60%, a water-soluble contrast media containing 292 mg of iodine/ml (meglumine dratrixoate 52.5% w/v and sodium diatrizoate 7.9% w/v). The child's mandible was placed in the lateral oblique position on a table. A 21-gauge blunted butterfly needle was introduced into the opening of the Stensen's duct and 2 ml of urograffin 60% were injected gently. Two exposures were obtained immediately following injection (Figs 1, 2).

The left parotid sialogram showed the Stensen's duct and its main branches to be normal (Fig. 3). Punctate, diffuse and spherical collections of contrast media were observed in the gland substance. The right parotid sialogram showed a normal Stensen's duct and its main branches. The glandular substance of the right parotid gland was extensively damaged compared to the left parotid gland. It consisted basically of globular sialectasis with some punctate sialectasis.

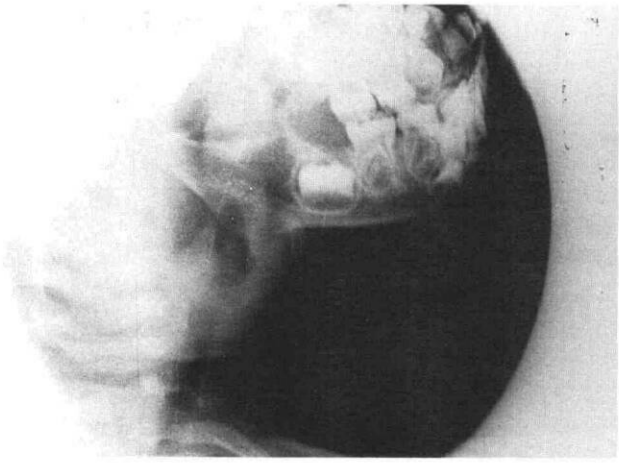


FIG 1. Lateral oblique radiograph of the right mandible before injection of contract media showing soft tissue swelling in the region of the right parotid gland. There is no calculus in the duct or gland parenchyma.

Management

The patient was treated with an antipyretic and antibiotic for 5 days. After that time the pyrexia had subsided; however, the bilateral swelling was persistent but reduced in size. The patient was re-examined 6 months later; by this time the swelling had subsided, there had not been any recurrent swelling, and she was afebrile.

Discussion

An individual who may have 2 or 3 episodes of sialadentitis may not necessarily develop the characteristic punctate lesions observed in sialograms associated with sialectasis; hence, a patient presenting with recurrent swellings with pain may require definitive diagnosis.

The cause of the disease is not yet known. However, it has been associated with retrograde bacterial infections of the Stensen's duct, autoimmune response, or mucous formation which may obturate the micro-ducts.

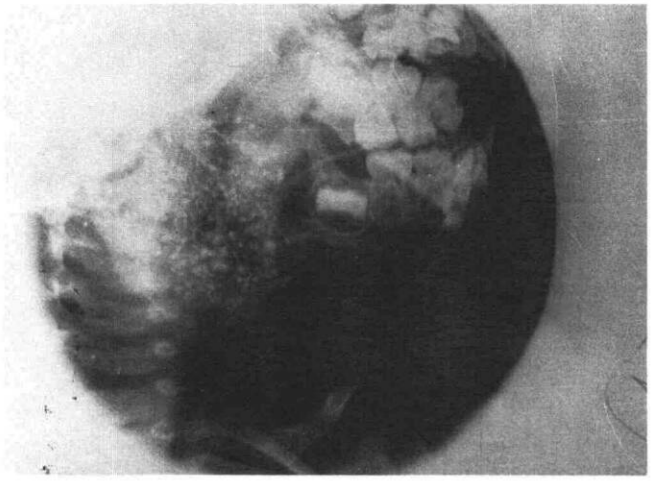


FIG 2. Right parotid sialogram showing globular and punctate sialectasis.

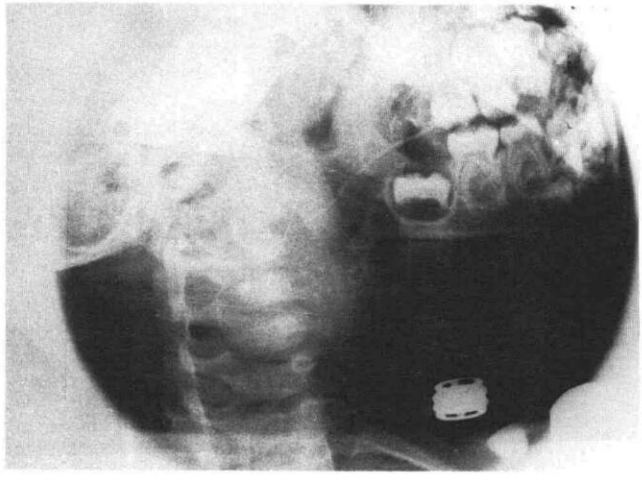


FIG 3. Left parotid sialogram showing punctate sialectasis.

In this particular individual, no factor could be associated with the recurrent clinical parotitis which proved to be sialectasis after sialography of both parotid glands showed punctate and globular lesions in the parenchyma to be of varying diameter. The lesions conformed to what has been described in the literature (Som 1981). Recurrent pediatric parotitis has been reported to completely regress after puberty (Gazi and Bhutta 1987). Recurrent parotitis in very young children may easily be confused with mumps which is a more frequent pathology. The other rare conditions which have to be considered are Mikulicz's disease, metabolic abnormalities such as malnutrition and allergic parotitis and parotid lymphadenopathy.

The patient has been reviewed on a monthly basis for the last 9 months and there has been no recurrence. Since sialectasis has been reported to regress after puberty (Gazi and Bhutta/ 1987) the child will continue to be reviewed at 3-month intervals. The mother has been told that if she notices any swelling to bring the child immediately to the clinic for management and observation.

The authors thank Mrs. Josephine Thuo, Mrs. Mary Kirimi, and Jose Mwangi for secretarial service.

Dr. Imalingat is a lecturer in oral radiology, Dr. Opinya is a senior lecturer, paediatric dentistry/orthodontics, and chairman of the University of Nairobi Dental School. Reprint requests should be sent to: Dr. Gladys N. Opinya, Dental School, University of Nairobi, PO Box 30197, Nairobi, Kenya, East Africa.

Blatt I: Chronic and recurrent inflammation about the salivary gland with special reference to children. Laryngoscope 76:917-33, 1966.

Brook AH: Recurrent parotitis in children. Br Dent J 127:271-75, 1969.

Budnick SD: Parotid enlargement, in Handbook of Paediatric Oral Pathology. Chicago; Year Book Medical Publishers Inc, 1981 pp 99-101.

Garvar LR, Kringstein GJ: Recurrent parotitis in childhood. Oral Surg 32:373-76, 1974.

Gazi GM, Bhutta ZA: Sialectasis pediatrica recurrens. Acta De Odontol Pediatr 8:21-28, 1987.

Jones PG, Hiller HG: Recurrent parotitis and sialectasis. Aust Paediatr J 4:288-94, 1968.

Maynard JD: Recurrent parotid enlargement. Br J Surg 52:784-89, 1965.

Philips CF: Epidemic parotitis, in Nelson Textbook of Pediatrics, 11th ed. Philadelphia; WB Saunders Co, 1979 pp 770-72.

Som PM: Manifestations of parotid gland enlargement — radiographic, pathologic, and clinical correlations. Radiology 141:415-19, 1981.

Patient's bill of rights

More than 10,000 people have requested the California Dental Association's *Dental Patient Bill of Rights*, part of a CDA ad campaign that's generated more than $3 million in free publicity.

The campaign positions CDA dentists as patient advocates. The bill of rights states that patients have the right:

- to see the dentist every time they receive dental treatment;
- to know in advance the type and expected cost of treatment;
- to expect dental team members to use appropriate infection controls, such as gloves;
- to ask about treatment alternatives and be told, in language they can understand, the advantages and disadvantages of each;
- to know the education and training of their dentist and the dental team; and
- to know what professional rules, laws and ethics apply to their dentist and the dental team.

In addition to the ads, the copy appear in a *Know Before You Go* brochure, a companion piece for the CDA campaign and on a handbill 8 1/2 by 11 inches.

Worldwide attention began when *Dear Abby* mentioned the campaign in her syndicated newspaper column. A *Los Angeles Times* editorial praised CDA for urging dental patients to exercise their consumer rights.

So far, 50 states, and 12 foreign countries have requested copies of the campaign material. About 300 letters are received each day from individuals requesting copies of the brochure and more than 10,000 have already been sent out.