

原文題目(出處)：	Clinical and radiographic findings and usefulness of computed tomographic assessment in two children with regional odontodysplasia. Case Rep Dent 2014, Article ID 764393
原文作者姓名：	Junko Matsuyama, Ray Tanaka, Futabako Iizawa, Tomiko Sano, Shoko Kinoshita-Kawano, Sachiko Hayashi-Sakai, and Tomoe Mitomi
通訊作者學校：	Division of Pediatric Dentistry, Graduate School of Medical and Dental Sciences, Niigata University, Japan
報告者姓名(組別)：	張仁虎(Intern D組)
報告日期：	103.11.10

內文：

I. Introduction

A. Regional odontodysplasia (RO)

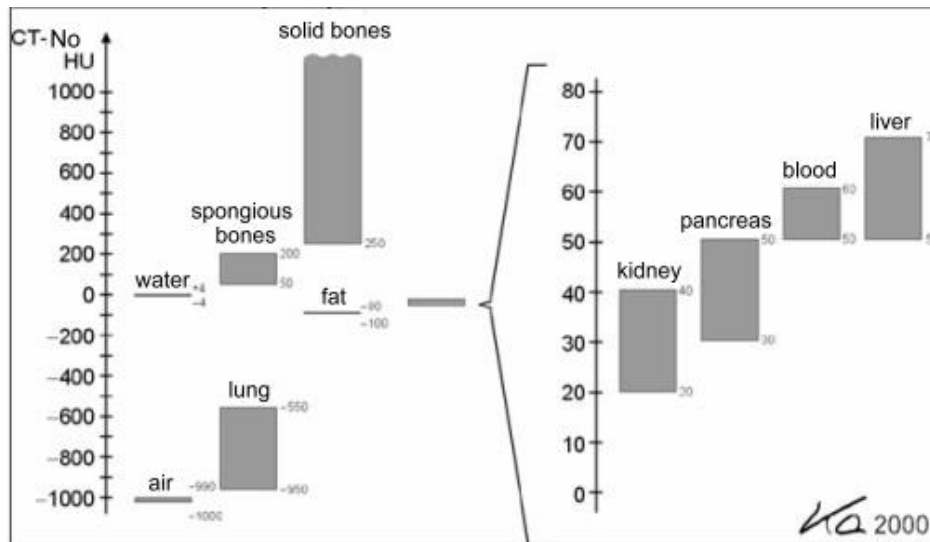
rare, severe, and nonhereditary developmental disorder
involves epithelial and mesenchymal-derived dental tissue
radiographs: “ghost teeth”
hypoplastic crown, and only a faint outline of hard tissue



Elsevier items and derived items © 2009 by Saunders, an imprint of Elsevier Inc.

B. Computed tomography (CT):
attenuation coefficients (i.e., HU: Hounsfield units)
for affected teeth and dental follicles

$$HU = \frac{\mu_x - \mu_{\text{water}}}{\mu_{\text{water}} - \mu_{\text{air}}} \times 1000$$



CT values of affected teeth :

For Enamel --- lower

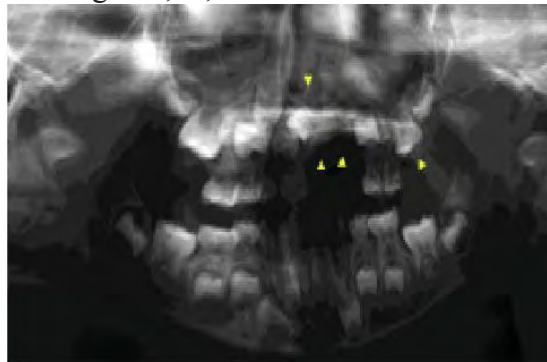
For dentin --- similar

For dental follicles in affected teeth was about 65 to 120 (higher)
dense fibrous connective tissues or hard tissue-like structures

II. Case 1. A Japanese boy aged 5 years and 8 months



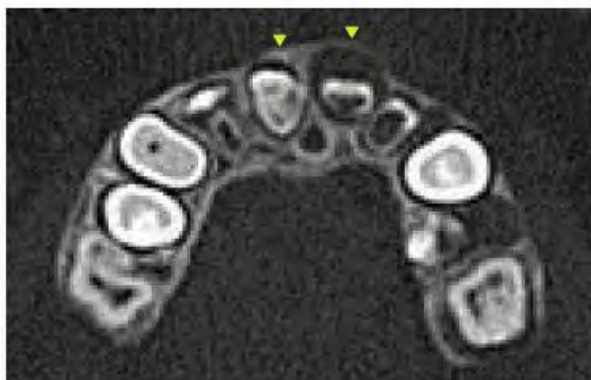
Missing : 61,62,63.



(age 5 years and 8 months)



(age 8 years and 4 months)

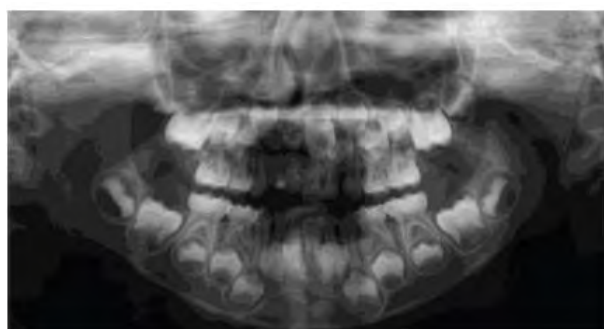


(a)



(b)

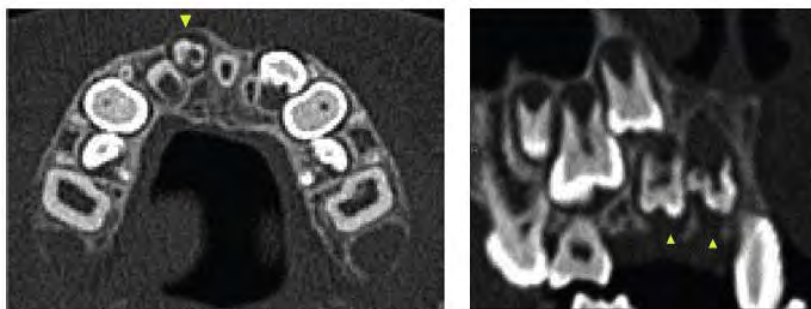
Case 2. A Japanese boy aged 6 years and 1 month



(age 6 years and 1 month)



(age 9 years and 2 months)



III. Discussion

	Case 1	Case 2	Sound
Enamel (lower)	2300 to 3300HU	2200 to 3100HU	4400HU
Dentin (similar)	similar	similar	1800HU
dental follicles(higher)	65 to 70HU	110 to 120HU	50 HU

Hypocalcification is more severe in enamel than in dentin.

CT images allow clinicians to evaluate localization of dysplasia and hypocalcification, uneven distribution of calcification, radicular form, pulpal form, and periodontal tissues near affected teeth.

DD with Cyst

In some patients, the unerupted tooth is surrounded by X-ray-permeable regions with clear boundaries, which resemble cysts or tumors (about 20 HU).

treatment of RO

1. removal of affected teeth
2. affected teeth, except for infected primary teeth, should be retained in the dental arch to promote ordinary jaw development.

Impacted teeth may lead to infections of the tooth germ and sequelae due to the presence of retained epithelial tissues, such as formation of follicular cysts and odontogenic tumors.

IV. Conclusion

CT could greatly improve regional odontodysplasia(RO) diagnosis and treatment. Because the CT values of regions corresponding to enamel in affected teeth were lower than those for sound enamel, promotion of formation and calcification of dental germs in the jaws, rather than immediate fenestration, may be useful for treating RO.

題號	題目
1	Regional odontodysplasia (RO) is a _ , _ developmental disorder of tooth formation. (A) General , nonhereditary (B) Localized , nonhereditary (C) General , hereditary (D) Localized , hereditary
答案(B)	出處：出處：Oral and maxillofacial pathology third edition P. 99
題號	題目
2	Regional odontodysplasia (RO) is a _ predominance(2.5:1), and a predilection for _ teeth. (A) maxillary , anterior (B) maxillary , posterior (C) mandibular , anterior (D) mandibular , posterior
答案(A)	出處：出處：Oral and maxillofacial pathology third edition P. 99