



: 가 .
: 31 . (hyoid bone)
, , , , , , , , ,
23
: 30 (97%) , 14
(45%), 11 (35%), 6 (20%) .
18 (58%), 9 (29%), 4 (13%)
. 15 , 12 3 .
1 - 3.8 cm (2 cm) 12 , 10 ,
(strap muscle) 9 . 6 2
. 1 mm 17 (55%), 1 mm 8 (25%), 1 mm
6 (20%) . 23 18 , 3 ,
2 .
:
.

(thyroglossal duct cyst) 가
(remnants)
1/3 30

(1).
(2 - 4) 1995 7 1998 6 3
(n = 20) (n = 11)
, 가, 31
가 ,
(5 - 7). , ,
가

(5, 8 - 10). 1 - 71 (28) , 가 17
가 , 가 14 .

ATL HDI 3000 (Bothell, WA)

10MHZ

1
2

2000 4 3 2000 10 19 .

(scan)

gel pad .

1 mm 가

(hyoid bone)

1 30 (97%)

(Fig. 1). 14 (45%), 11 (35%),

가 6 (20%) . 18 (58%),

9 (29%),

4 (13%) .

3 , 1 2

13

4 , 2 , 7

12 2 10 .

가 ()

(Fig. 2) 15 (48%),

12 (39%), 3 (10%),

1 (tubular) .

가 가 28 (90%) 가 3

(10%) 1 - 3.8 cm (2 cm) .

12 (39%)

(Fig. 3), 10 (32%) , 9 (29%)

Table 1. Contents of the Thyroglossal Duct Cyst: Ultrasonographic Features

Content nature	Number	Echogenicity			Septum	Mural nodule
		Anechoic	Hypoechoic	Isoechoic		
Mucous	18	8	6	4	5	2
Serous	3	0	0	3	0	0
Purulent	2	0	0	2	0	0

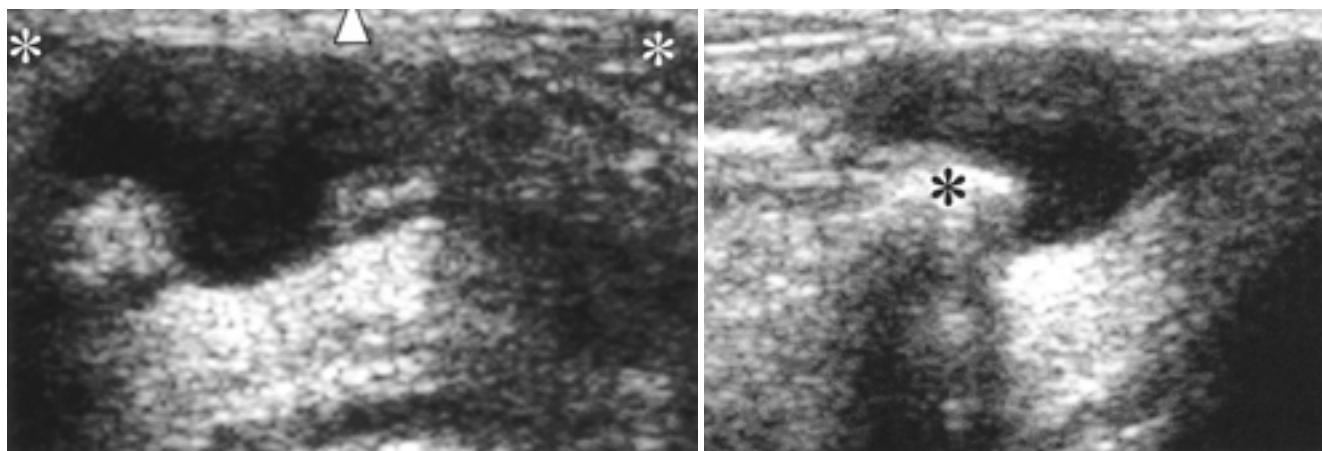


Fig. 1. A case of the anechoic thyroglossal duct cyst.
A. Transverse scan shows a midline (arrow head) lobulating cyst between strap muscles (*).
B. Longitudinal scan shows the cyst is attached to the hyoid bone (*). The cystic content was proved as mucous fluid without inflammation.

가 2 (Fig. 4). 6 (19%) 1 (Table 1).

1 mm 가 17 (55%), 1 mm
가 8 (25%), 1 mm 가 6 (20%)

23 18 , 3 ,
2 , 8 , 6 ,
4 , 가 13 , 가
5 . 3
2

(foramen cecum)
(thyroid anlage)
(thyrohyoid
65%가 ,
membrane)
20%가 , 15%
(12).
45% 가 . 97%

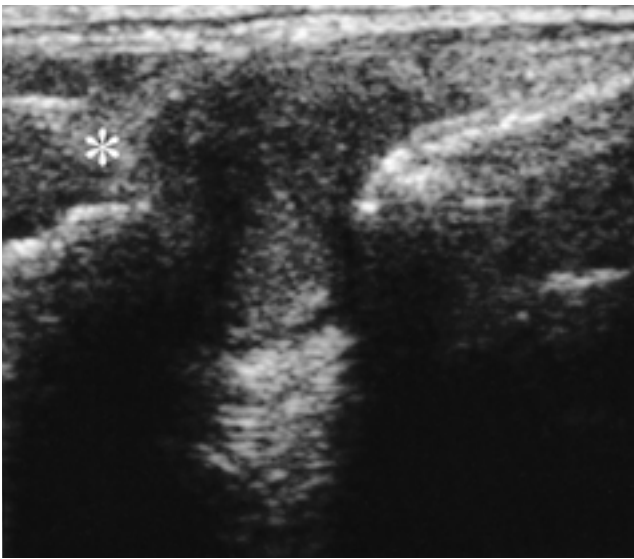


Fig. 2. A case of the heterogeneous hypoechoic thyroglossal duct cyst. Longitudinal scan shows a triangular shaped cyst, upper margin of which is attached to the hyoid bone (*).

(9).

(siphon like widening)
(11 - 14). 가
(Fig. 5).

Sistrunk
procedure (5, 8).
(2 - 7, 15) 42%

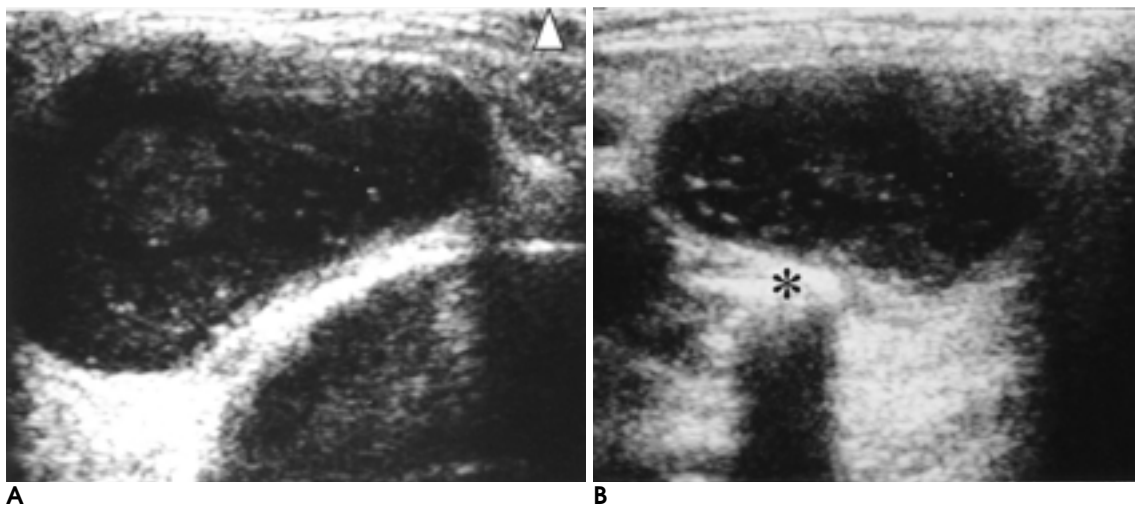
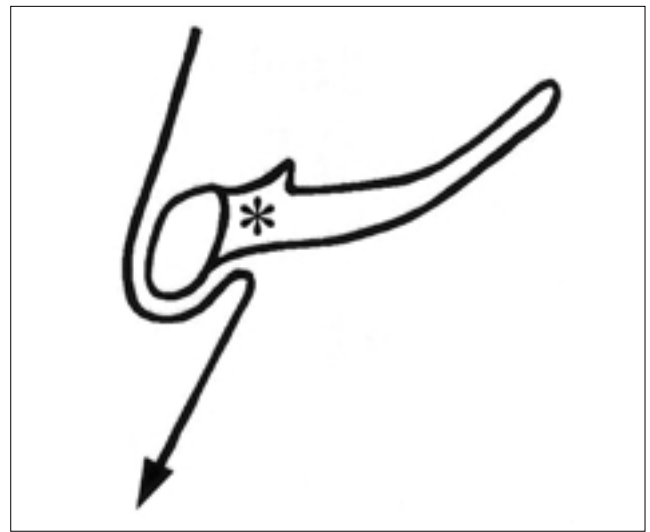
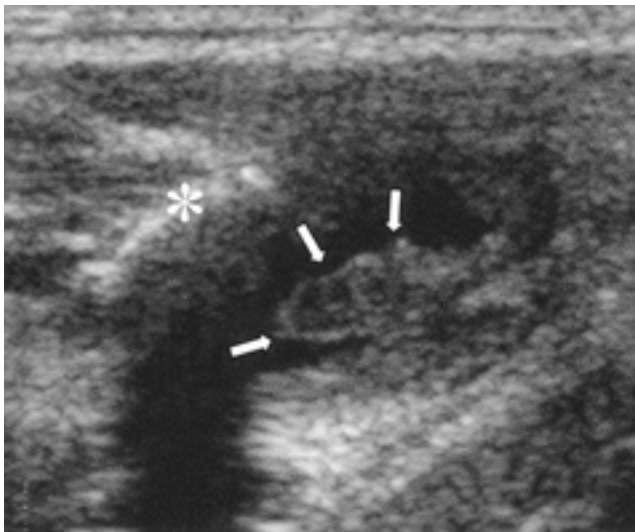


Fig. 3. A case of the hypoechoic thyroglossal duct cyst.
A. Transverse scan shows a triangular shaped cyst located on the off-midline (arrow head).
B. Longitudinal scan shows a triangular shaped hypoechoic cyst, with heterogeneous internal echo, is attached to the hyoid bone (*). The cystic content was proved as mucous fluid without inflammation.



(5) . 가 , (7, 8, 16). 5 1 가 가 (mural nodule) (ectopic thyroid tissue) (5, 6). 1% 가 . 가, (6, 8, 9). (10). 2 (dermoid), (external laryngocoele), 2 (second branchial cleft cyst), (cystic hygroma), (5, 16). (5, 8, 16 - 18). (laryngeal ven - tricle) (supra - glottis) 가 (6). 2 (sternocleidomastoid muscle)

(8, 18).

(8, 18).

가

(hilum)

(7).

(6).

가

1. Allard R H B. The thyroglossal cyst. *Head Neck Surg* 1982;5:134-146
2. Cumberworth VL, Bradley PJ. Atypical thyroglossal duct cyst. *J Laryngol Otol* 1989;103:700-703
3. Ward RF, Selfe RW, St. Louis L, Bowling D. Computed tomography and the thyroglossal duct cyst. *Otolaryngol Head Neck Surg* 1986;95:93-98
4. . 1994;31:1185-1189
5. Girard M, Deluca SA. Thyroglossal duct cyst. *Am Fam Physician* 1990;42:665-668

6. . 1995;32:711-716
7. . 1998;17:353-358
8. Wadsworth DT, Siegal MJ. Thyroglossal duct cysts: variability of sonographic findings. *AJR Am J Roentgenol* 1994;163:1475-1477
9. Baatenburg de Jong RJ, Rongen RJ, Lameris JS, Knegt P, Verwoerd CA. Ultrasound characteristics of thyroglossal duct anomalies. *Otolaryngology* 1993;55:299-302
10. Ahuja AT, King AD, King W, Metreweli C. Thyroglossal duct cysts: sonographic appearances in adults. *AJNR Am J Neuroradiol* 1999;20:579-582
11. Horisawa M, Niinomi N, Ito T. Anatomical reconstruction of the thyroglossal duct. *J Pediatr Surg* 1991;26:766-769
12. Bourjat P, Cartier J, Woerther JP. Thyroglossal duct cyst in hyoid bone: CT confirmation. *J Comput Assist Tomogr* 1988;12:871-873
13. Solomon JR, Rangelcroft L. Thyroglossal-duct lesions in childhood. *J Pediatr Surg* 1984;19:555-561
14. Davis JP, Toma AG, Robinson PJ, Freidmann D. Ossified thyroglossal cyst - is it of embryological significance? *J Laryngol Otol* 1994;108:168-170
15. Kraus R, Han BK, Bobcock DS, Destreich AE. Sonography of neck masses in children. *AJR Am J Roentgenol* 1986;146:609-613
16. Raskowski D, Arnold J, Healy GB, et al. Thyroglossal duct remnants. *Arch Otolaryngol Head Neck Surg* 1991;117:1378-1381
17. Soucy P, Penning J. The clinical relevance of certain observations on the history of the thyroglossal tract. *J Pediatr Surg* 1984;19:506-509
18. . 1995;33:513-519

Thyroglossal Duct Cyst: Sonographic Findings Revisited¹

Sun Mi Kim, M.D., Ho Kyu Lee, M.D., Jong Hyun Yoon, M.D.,
Ji Hoon Shin, M.D., Choong Gon Choi, M.D., Dae Chul Shu, M.D., Sang Yoon Kim, M.D.²

¹Department of Radiology, University of Ulsan, College of Medicine

²Department of Otolaryngology, University of Ulsan, College of Medicine

Purpose: The purpose of this study was to review and re-evaluate the well-known ultrasonographic characteristics of cysts of the thyroglossal duct.

Materials and Methods: We retrospectively reviewed the ultrasonographic findings in 31 patients with pathologically proven cysts of the thyroglossal duct. Assessment involved the following variables: relationship to the hyoid bone, location, shape, size, margin, internal echogenicity, the presence of septa, solid component, and thickness of the cystic wall. The echogenicity of cystic contents was evaluated in 23 cysts for which surgical or aspiration biopsy reports were available.

Results: Cysts were closely attached to the hyoid bone in 30 cases (97%). Their location was infrahyoid in 14 cases, hyoid in 11, and suprahyoid in six; and midline in 18, both midline and off-midline in nine, and off-midline in four. A triangular shape was seen in 15 cases, a round or oval shape in 12, and a lobulated shape in three. Their diameter varied from 1 to 3.8 (mean, 2) cm, while internal echogenicity was hypoechoic in 12 cases, anechoic in ten, and isoechoic in nine. Septations were noted in six cases, and a solid component in two. The cystic wall was less than 1mm thick in 17 cases, even and greater than 1mm in eight, and uneven and greater than 1mm in six. Among 23 cases, the cystic contents were mucous in 18, serous in three, and purulent in two. The echogenicity of cysts with mucous content varied, while serous or purulent cysts were isoechoic.

Conclusion: The characteristic sonographic finding of cyst of the thyroglossal duct is a centrally located triangular neck cyst, closely related to the hyoid bone.

Index words : Neck, US
Neck, abnormalities

Address reprint requests to : Ho Kyu Lee, M.D., Department of Radiology, University of Ulsan, College of Medicine
388-1 Poongnap-Dong, Songpa-Ku, Seoul 138-736, Korea.
Tel. 82-2-2224-4400 Fax. 82-2-476-4719