

A Clinical Analysis of Thyroglossal Duct Cyst and Sinus

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Purpose: Anomalies in the thyroglossal duct are the most common midline, or paramedian cervical lesions of congenital origin. Presenting as a thyroglossal duct cyst (TGDC) or a thyroglossal duct sinus (TGDS), they are found in all age groups. This clinical study was intended to elucidate the clinical characteristics, and the outcomes, of surgical treatment of these anomalies.

Methods: Between January 1992 and May 2002, 91 patients underwent surgery for a TGDC or a TGDS at 4 hospitals affiliated to Hallym University. The demographics of the patients, the clinical characteristics of the lesions, and the outcomes of the treatments were retrospectively evaluated. These characteristics were evaluated according to age groups; younger than 15 (38 patients) and older than 15 (53 patients) years.

Results: The male to female ratio was 1.67:1 (It is better to give the actual figures.), with the first decade showing the highest incidence in the age distribution (33%). Painless masses (83.6%) were the most common presenting symptom, with most symptoms having been manifest for less than 1 year (67%). TGDCs were 90% and TGDSs were 10%. There were 62 cases of infrahyoid and 18 of suprahyoid lesions, with 80 cases on the midline and 11 on the paramedian within 2 cm from the midline. Of the paramedian lesions, 2 cases were in the younger group and 9 were in the older group. This tendency of laterality in the location by age group showed no statistical significance

($p=0.172$). All the patients underwent a Sistrunk operation, and one experienced a recurrence.

Conclusion: This study justified the Sistrunk operation as the treatment of choice for anomalies of the thyroglossal duct. The lateral lesions occurred in the old age groups more frequently. A careful approach is needed with paramedian cervical lesions in adults to avoid the loss of the proper treatment of possible hidden congenital lesions. (*J Korean Surg Soc* 2003;64:189-193)

Key Words: Thyroglossal duct cyst, Thyroglossal duct sinus, Sistrunk operation

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70% 가 , 가
 2 , 가
 Sistrunk
 91

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 150-020,
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 : 2002 10 26 , : 2002 11 30

1992 1 2002 5
 91

1) 1 78 , 10 가 30 (33%)
 가 , 20 16 (17.6%), 10 12 (13.2%), 30
 12 (13.2%), 40 10 (10.9%) . 1.67 :
 (Table 1).

2) 82 (83.6%)
 가 9 (9.1%),
 7 (7.1%) . 1 가 61 (67%) 가
 , 5 19 ,
 2 30 . 91 10 (11%)
 가, 가

3) 82 (90%)
 , 9 (10%) .
 가 7 , 가 6 ,
 가 5 91 18 (19.8%)가 1

4) 82 72 , 4 , 6
 . 8 , 1
 , 91 80 (87.9%)
 (paramedian) 11
 2 cm . 15 38 2 (5.2%)
 , 15 53 9 (16.9%)
 15
 (P=0.172)(Table 2).

5) (42)
 (21) 가 ,
 25 .

6) 91 16 , 15

Table 1. Age and sex distribution

Age	Male	Female	Total (%)
0~10	23	7	30 (33%)
11~20	8	4	12 (13.2%)
21~30	9	7	16 (17.6%)
31~40	7	5	12 (13.2%)
41~50	4	6	10 (10.9%)
51~60	6	3	9 (9.9%)
61~70		1	1 (1.1%)
71~80		1	1 (1.1%)
Total	57 (62.6%)	34 (37.4%)	91 (100%)

7) 91 90 Sistrunk ,
 1 . 4
 . 1

8) 1 cm 2 cm 가 38 (41.75%) 가
 , 2 cm 3 cm 가 29 (31.87%), 5 cm
 3 가 . (Probe)
 (Table 3).

9) 80
 (Suprahyoid) 18 (22.5%), (Infrahyoid)
 62 (77.5%) (Table 4).
 1 cm 2 cm 가 20

Table 2. Location according to type and age

	Midline	Paramedian	Total	P-value
Cyst	72	10	82	0.428
Sinus	8	1	9	
< 15 years	36	2 (5.2%)	38	0.172
15 years	44	9 (16.9%)	53	
Total	80	11	91	

Table 3. Size

Length (cm)	No. of cases (%)
0~1	6 (6.59%)
1~2	38 (41.75%)
2~3	29 (31.87%)
3~4	11 (12.08%)
4~5	4 (4.39%)
5	3 (3.29%)
Total	91 (100%)

Table 4. Type according to hyoid bone level

Midline (80 cases)		
Suprahyoid	Infrahyoid	No. of cases
18 (22.5%)	62 (77.5%)	80 (100%)

Table 5. Pathology

Thyroglossal duct cyst & sinus	No. of cases (%)
c thyroid tissue	38 (41.8%)
s thyroid tissue	53 (58.2%)
c inflammatory cell	68 (74.7%)
s inflammatory cell	23 (25.3%)
Lining epithelium	No. of cases (%)
Pseudostratified ciliated columnar	45 (49.5%)
Squamous	21 (23%)
Cuboidal	5 (5.5%)
Fibrosis	3 (3.3%)
Granulation	5 (5.5%)
Abscent	12 (13.2%)
Total	91 (100%)

*c = with; † s = without.

10)

가 38 (41.8%),
 가 53 (58.2%) . 68 (74.7%)
 가 45 (49.5%), 가 21 (23%) , 가
 가 12 (13.2%) .
 (Table 5).

가

. 50% 20 30
 70% .(2,4,6)
 10 32.9% 가
 21 30 가 17.6%, 10 가 13.1%, 30 가 13.1%,
 40 가 10.9%, 50 가 9.9%
 . Brauer(7)
 2:1
 1.67:1



.(8,9)

가 2

3 1, 2

7
 ,(1) 8 10

(83.6%), 가 9 (9.1%),
 7 (7.1%) , 10 (11%)

70% 가 ,(2)
 2 .(3)

80%
 .(4)

.(10,11,13)

1%
 .(5)

Telander (9) 4:1

9: 가 , 20%

1 가 가 19.8%

가 가 62 (77.5%) 가 , 가 18

(12,13) (22.5%) . Sistrunk 가 38

20 (52.6%) 1 cm 2 cm 가 가

Telander (9,14) 75% 가

, 25% 2 cm , , (20)

82 72 , 4 90 1

, 6 10 가 , 가 .

9 8 , 1 91 Sistrunk

80 (87.9%)가 3~4 cm ,

2 cm 11 가 .

(12.1%) (11) , , ,

9% 16%

15 , , 4

5.2%, 16.9% 1 cm 2 cm 가 36

(P=0.172). (49.5%) 가 , 2 cm 3 cm 가 27

(29.6%) , 5 cm 3 가 . 가

가 , Topf (22)

(54%) (34%)가 가

(6%), (6%) .

(15) 가 (16)

49.5%, 23%, 5.5%

가 가 13.2%

(17) 74.7%

가 60%

41.8%

25 1%가

, , , , . (2,24)

, (18) 가 (80%)

1893 가 (8%), (6%)

50% . 1893 Schlange(19)가 .(5,25-27) 가

Sistrunk ,

20%

. 1920 Sistrunk 가

Sistrunk

2.6%

(2) Dolata (21) 80%

가
 .
 1992 1 2002 5
 91
 10 가 , 가 1.67:1
 가 .
 , 67% 1
 91 80 (87.9%)
 15
 (P=0.172).
 90 Sistrunk
 38
 가 45
 가 .
 가 .

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