

SURGICAL REVIEW OF THYROGLOSSAL CYSTS

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SYNOPSIS

A retrospective study of 31 cases of thyroglossal cyst was undertaken to look into the pattern of presentation of the condition and its treatment. The male to female ratio was 1:1.2. 41.9% of patients were less than 12 years old at the onset of symptom. There was a higher percentage (48.4%) of patients presenting in later life. The operative findings were discussed and the importance of complete excision of the cyst and its tract by the sistrunk operation emphasized.

INTRODUCTION

Thyroglossal cyst is a relatively common congenital anomalies which occurs usually in the anterior midline of the neck. This condition has been of interest to the surgeons for several reasons. First, from the point of view of differential diagnosis. Second, the presence of a cyst or sinus is of cosmetic concern especially in the young. Third, when inadequately treated, it poses the problem of morbidity due to recurrent infections and sinuses.

MATERIAL AND METHOD

All cases between January 1974 and January 1981 were included in the series. A total of 31 cases were available for analysis. The diagnosis of thyroglossal cyst was made on clinical grounds with pathological confirmation of surgical specimens.

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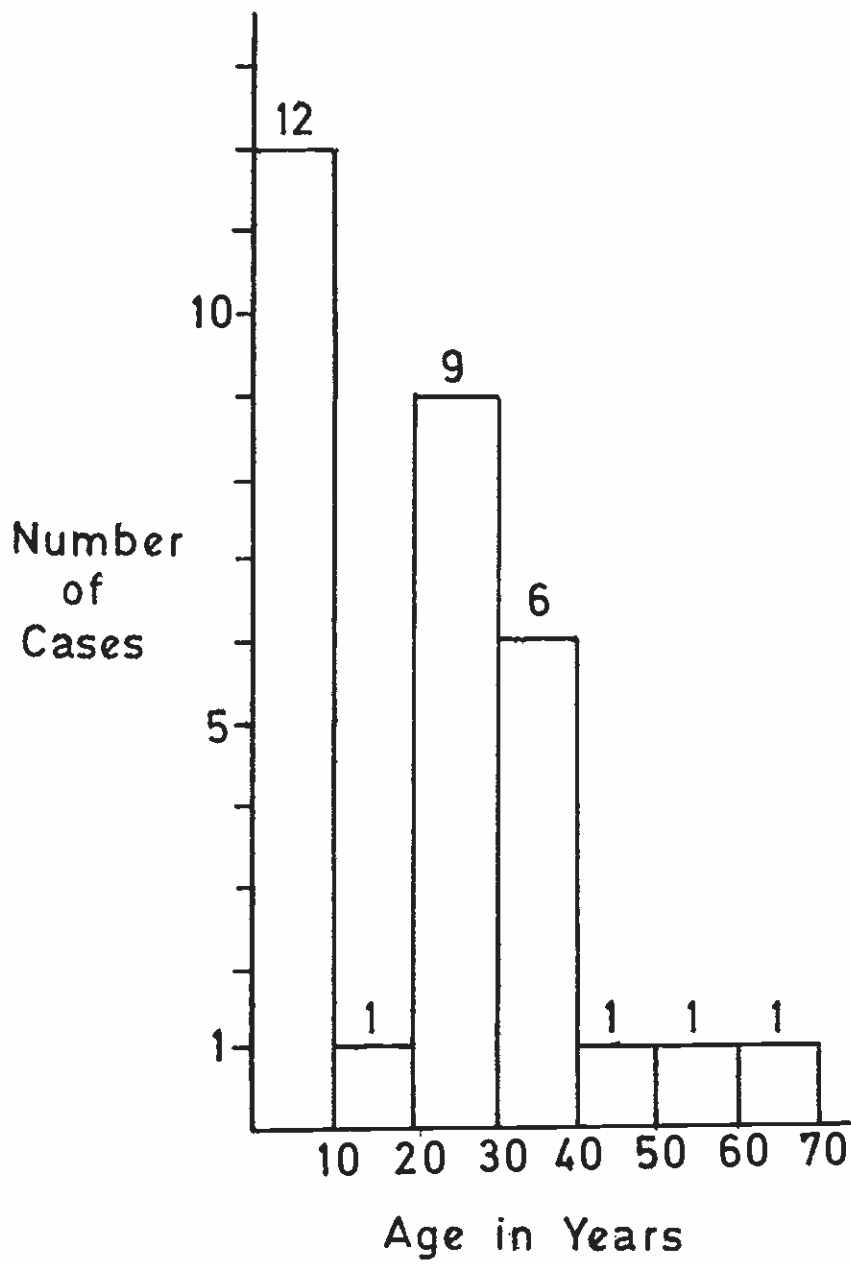


Fig.1. AGE DISTRIBUTION OF THYROGLOSSAL CYSTS

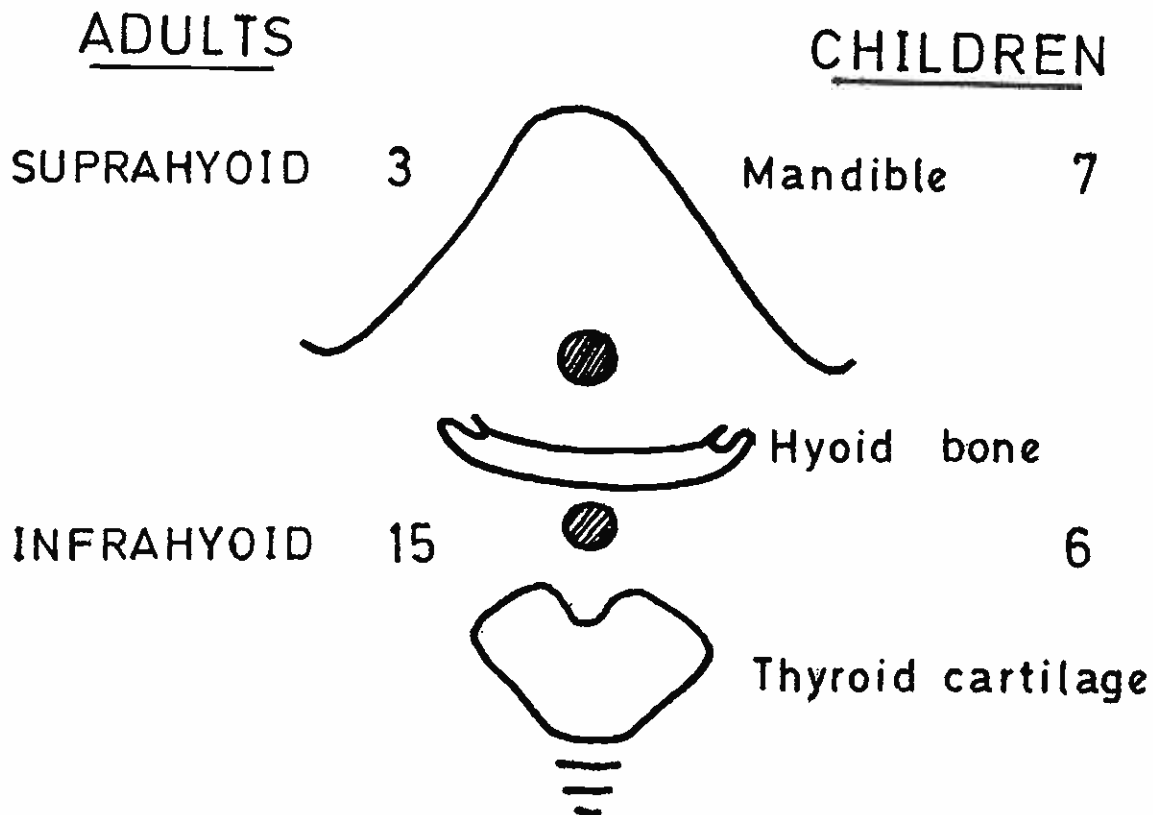


Fig.2 LOCATION OF CYSTS

RESULTS

1. Sex incidence
There were 14 males and 17 females giving a slight female preponderance of 1:1.2.
2. Age distribution
The ages of the patients were calculated back to the time of onset of symptoms.
13 patients (41.9%) presented in childhood (less than 12 years old) while another 15 patients (48.4%) were seen in the third and fourth decades of life. (Fig. 1).
3. Clinical presentation
21 patients (67.7%) sought medical treatment within one year of the onset of symptoms. However, 10 patients presented with symptoms lasting 2 years or more. There were 4 patients who had noticed lump in the neck for more than 10 years.

All patients complained of lump on the neck at one time or another. 3 patients (9.7%) had history of previous surgery to the lumps and were seen for recurrences.

27 patients (87%) were found to have cysts, 2 patients had fistula in the neck, one had an abscess and another, an abscess associated with a discharging fistula.

Of the 31 patients reviewed, the cysts were found to be suprahyoid in 10 patients and infrahyoid in 21 patients. Among the children, the incidence of suprahyoid to infrahyoid cyst was 7:6. In the adults, there were only 3 suprahyoid cysts while 15 had infrahyoid cyst (Fig. 2)

4. Operative Findings

All cysts were approached through a skin crease collar incision which provided adequate exposure even if a sistrunk operation was performed.

In 9 patients (29%) cysts were found without any associated tract. For these, simple excision of the cysts was carried out. In 20 patients (64.5%) there were an associated

thyroglossal tract. The relationship of the tract to the hyoid bone is shown in Table 1.

Table 1 Relationship of tract to hyoid bone

Position of tract	No.
up. to hyoid bone	9
behind hyoid bone	9
through hyoid bone	1
infront of hyoid bone	1

Of these patients, it is surprising to note that only 7 patients underwent the sistrunk operation. The remaining 13 patients had simple excision of the cyst and tract without resection of the hyoid bone. One patient with abscess formation had an incision and drainage performed initially followed by formal excision of the cyst subsequently. One patient with fistula formation underwent excision of the fistula.

5. Follow up

Most of the patients were followed up for only a short duration after surgery, with instructions to return should they notice any recurrence. To date, 4 patients have undergone further surgery for recurrences. The onset of recurrence varied from within one month of initial surgery to 2 years after. It was noticeable that none of the 7 patients who underwent the sistrunk operation have returned with recurrences.

DISCUSSION

The differential diagnosis of an anterior cervical lump includes a number of clinical entities as the neck is one of the most complicated anatomical regions of the body. With

exclusion of lymph node involvement, thyroglossal cyst make up about one third of midline swelling (1,2). These lesions are commonly seen in the paediatric age group but they may occur in any age groups (1,3). In this series, 48.4% of patients were in early adulthood. There was no obvious sex predilection.

The most common presenting feature is a mass in the midline of the neck. Wampler et al (1) found only 20% of cysts above the hyoid bone. In this series, amongst the adults, most of the cysts were infrahyoid and these were often misdiagnosed as thyroid cyst.

Some degree of inflammation or infection is present in most thyroglossal cysts due to its communication with exterior at the foramen caecum (4). Majority of this mild infection can be aborted with antibiotics and incision and drainage should be withheld as this would result in scarring of tissue and make subsequent definitive surgery difficult.

The best method of treatment consists of radical excision of cyst with a central portion of hyoid bone and a core of the tract right up to foramen caecum as originally advocated by Sistrunk (5) and also emphasized by many others (1,3,6), only 7 patients out of twenty with associated thyroglossal duct underwent sistrunk operation and none had recurrence. Though Sistrunk claimed that his operation should cure all patients, Stephen from Mayo Clinics reported a recurrent rate of 2.6% (3). Amongst the 14 patients treated by simple excision, 4 patients had experienced recurrences and all required more radical operations. It is important to note that in the event of recurrence, any forms

of local treatment like curettage, cautery or injection of sclerosant is of no value. (7,8).

In conclusion Sistrunk operation should be performed in all case of thyroglossal cyst with tract in order to avoid recurrence which is known to associate with considerable amount of morbidity.

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