Thyroidectomy Result of 560 Operations

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Abstract

From Jan. 1979- Jan. 1990, 560 thyroidectomies were performed by the author in Hilla Surgical Hospital. Most of the patients were continuously followed up.

The result of low morbidity and no mortality as well as with low rate of recurrence, sex, age ratio are discussed, the result of types of operations and the length of stay in hospital are mentioned.

Post - operative follow up of all patients with administration of L-thyroxine done, thyroid hormon (L-Thyroxine) should be administered as post operative follow up to all women of child bearing age.

Surgical management of recurrent goitre are mentioned.

Introduction

560 thyroidectomies were performed by the author in Hilla Surgical Hospital from Jan. 1979-Jan. 1990.

(We included in our study only the cases that could be followed in hospital and in private clinic).

Female patient were 508 (90.71%), male were 52 (9.29%) with female/ male ratio 10.5/1 the high incidence of goitre is between 20-30 years of age (Fig.1).

Simple non toxic goitre in its various forms were 467 (83.39%) Toxic goitre in its various forms were 93 (16.61%) (Fig.6). Multinodular goitre were 298 (53.21%) from these 272 (91.27%) were simple and 26 (8.72%) were toxic multinoduler.Thyroid adenoma (nodule) were 188 (33.57%). The right nodule were 114 (60.63%), the left nodule were 64 (34.04%). the central nodule were 10 (5.31%) as shown in (Fig.2).

Diffuse goitre were 74 (31.21%) from these 54 were toxic and 20 cases were simple (Fig. 3). of the 93 toxic cases 87 (93.54%) were female and 6 (6.45%) were male.

From these 87 female toxic goitre patient 62 (71.26%) have had oral contraceptive pills in their maternity life (the relation between toxicity and oral contraceptive need to be studied and investigated).

Benign goitre were 514 (91.78%) malignant thyroid tumour were 18 (3.21%) (Table 1).

The type of malignancy as shown in (Fig.4). From the recurrent goitre which are 15 cases. 3(20%) prove to be malignant papillary carcinoma.

Other types of goiters tumor were 28 (5%) as shown in Table (1). The type of operation and the result with the follow up and complication all discussed.

Patients and Methods

All patients with goitre were admitted to the surgical unit II during the period mentioned. (10 years)

The series consist of 508 female and 52 male. With a ratio 10.5/1, the age, sex distribution and the different types of lesion are shown in (Fig. 1,5) of all the operations 15 cases were recurrent goitre (13 cases out of 15 were treated in other center by other surgeon). Only 2 cases (0.35%) were in the author series (while 6% were in Hedley series (Hedley 1970 b).

Thyroid function was assessed by serum T3, T4, TSH for all patient thyroid scintigraphy was always performed in all cases.

X-ray of chest, Haemoglobin, urine examination done routinely. All these examinations were done on the out patient attendencies. Serum calcium for assessment of parathyroid done in most of cases post - operatively.

State and examination of vocal cords were reported by the anaesthists immediately post operatively.

Biopsy result were reported for all cases (Table 1).

Operative Technique

All patients were operated on under endotracheal anaesthesia, the surgical procedure has previosly been discribed (Heiman 1962). Collar incision was used, infrahyoid muscles were seperated, thyroid gland exposed by fine dissection, inferior thyroid vein ligated by No. 1 silk, superior thyroid pedicle ligated by double ligature by No. 2 silk inferior thyroid artery ligated incontinuity but not divided.

As a rule in the author experience, the recurrent laryngeal nerves were not identified and not freed. Subtotal resection by Wedge resection of both lobes done, suturing the thyroid remenant by 1/0 chromic catgut . Corrugate 2 drains left in, muscles closed by 1/0 catgut 3/0 silk for skin.

Results

All patients were followed closely post operatively, for bleeding, stridor due to laryngeal spasm or paresis of vocal cords, and for tetany. Drains removed after 24 hours skin stiches removed on 3rd post operative day.

No antibiotic cover for almost all patients. The average stay in hospital was 3 days.

12 patients (2.14%) developed mild to moderate hoarseness of voice which returned normally in 3-6 weeks.

8 patient (1.42%) developed mild tetany appeared in 2nd post operative day (5 cases) devloped tetany. Which has been treated by i.v., injection of calcium for few days then oral calcium and vit. D, no perment tetany was noticed, all cases (8) were normal in 4 weeks time.

Discussion

From these 560 thyroidectomies, there was no mortality and the surgical morbidity was very low. The long term result so far are promissing as regard recurrence of the disease, only 2 cases (0.35%) as recurrent in author seies. Post operative treatment by L. thyroxine 0.1 mg tab. daily beffore breakfast is essential for all patient specially for women till around menopause.

Thyroid surgery in experiened hands should not carry any post opertive mortality, operative injuries to recurrent laryngeal nerve was rare and occur in 12 case (2.14%) in a form of mild to moderate hoarsness of voice which return normally in 3-6 weeks time.

Recurrent laryngeal never injury is widely publicized and has recorded incidence which varies from 3.9% (Gisselsson, 1949) to nil (Wade, 1965).

In the auther's series permenent paralysis was nil because not expose the nerves. (it was less than 0.5% in series of Michie 1975). Routine exposure is believed by some to reduce the incidence of nerve injury (Lahey, 1938, Riddell, 1970). Though this is not universal practice as mentioned by (Michie 1970).

Paresis is frequently temporary and may develop post operatively in 2-3 days, if the anaesthesist has record. Vocal cords movement normal at the end of the operation, full recovery will evantuate in 2-3 months time post operative (Michie 1975). Difficulty in swallowing due to superior lanyngeal nerve trauma also occur in 15 cases (2.67%), soon these symptoms would disappear in 1-2 weeks (it was 20% in series of Michie 1975). Hypocalcaemic syndrom (tetany) appear in 8 cases (1.42%) it was (2.2% in series 1 Hiemann) from mild to moderate symptoms.

When partial thyroidectomy is performed the risk of hyocalcaemia is minimal, but an increase in radical surgery (Michie 1975). Symptoms appear within 1-3 days post operatively, soon become well and no futher treatment needed. Most of the patient having their serum calcium done on 2nd post operative day ranging between 8.4-11.2 mg and on 10-14 post operative days as weel.

Subtatal thyroidectomy done for all multinodular goitre or diffuse goitre whether simple or toxic.

R or L hemithyroidectomy with ligation of superior pedicle and inferior thyroid artery were done, for all nodule or cyst. In R. or L. sides respectively no signs of hyopothyrodism was noticed or met in all cases reviewed.

Conclusions

Pre operative investigation of patients should be done as out-patient attendencies, for all thyroid function tests and scan with routine investigation those with toxis goitre who need surgery preparation done by usual antithyroid drugs (Neomereazole) and B-Blocker and were hospitised 3 days before operation for cheeking sleeping pulse rate.

Good surgical resection of one or bilateral lobe must be done which will decrease the rate of recurrence with the excision or rupture of all the minor cyst or module seen or flet in the rement segment.

Recurrent layngeal nerve not necessary to be freed or dissected (which will give more chance of damaginig it on dissection).

Post operative long term treatment by L- Thyroxine is essential specially for women of child bearing age.

We advice :

- Goitreus patient (female) should not use oral contraceptive pills.
- Recurrent goitre should not managed surgically in order to exclude malignancy.

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Table (1) : Types of Biopsies in 560 cases

	Colloid	Follicular	Lymphoeitic	Atypical	Bengin Teratoma
Bengin 514	324	116	65	8	1

	Differentiated			
	Follicular	Papillary	Papillofollicular	Medullary
Malignant 18	8	7	2	1

	T. B.	Hydatid cyst	Simple cyst	calcyfied
Other Pathology 28	1	2	15	10

Fig.(1)
Distribution of cases according to age and sex

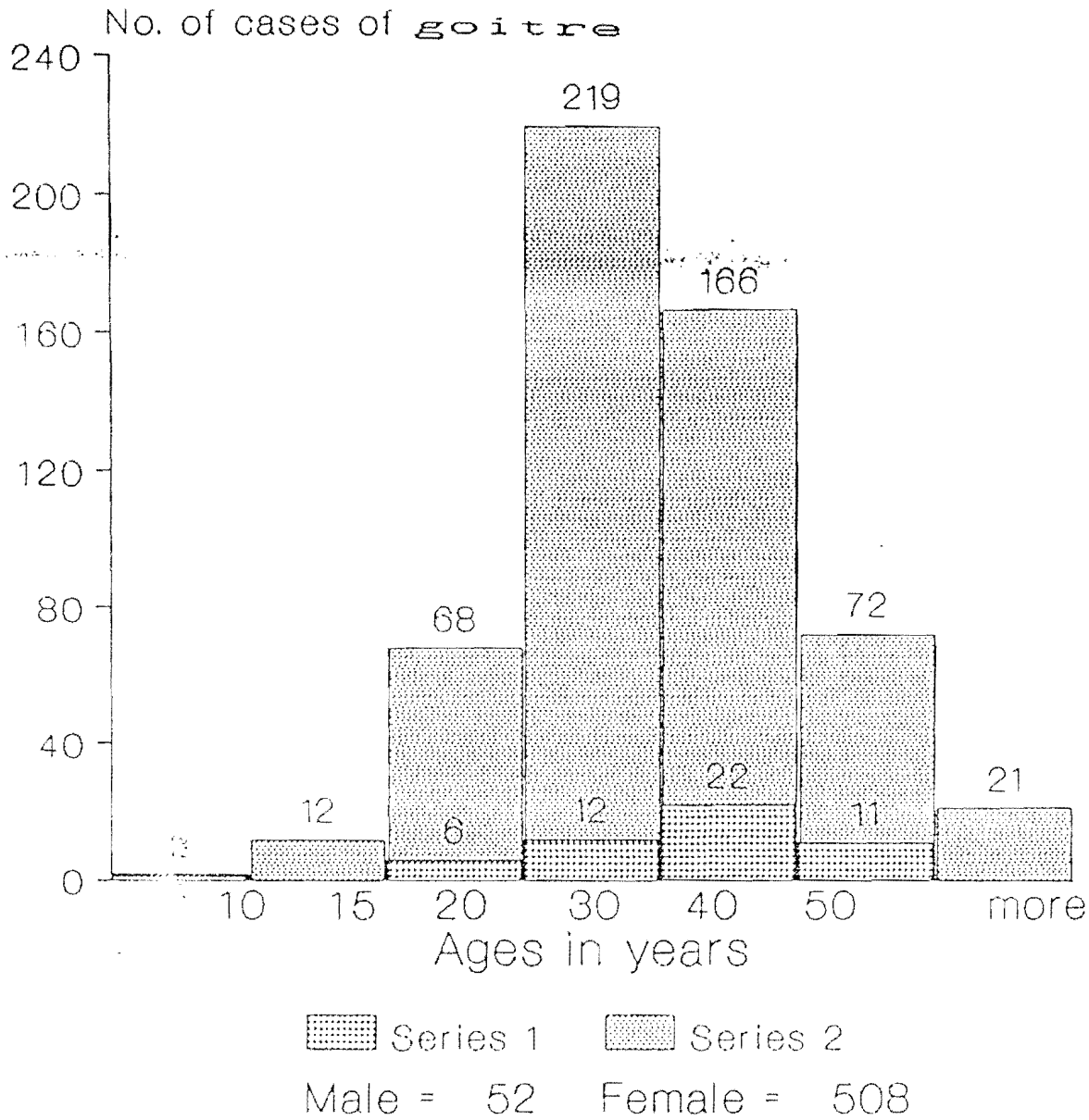
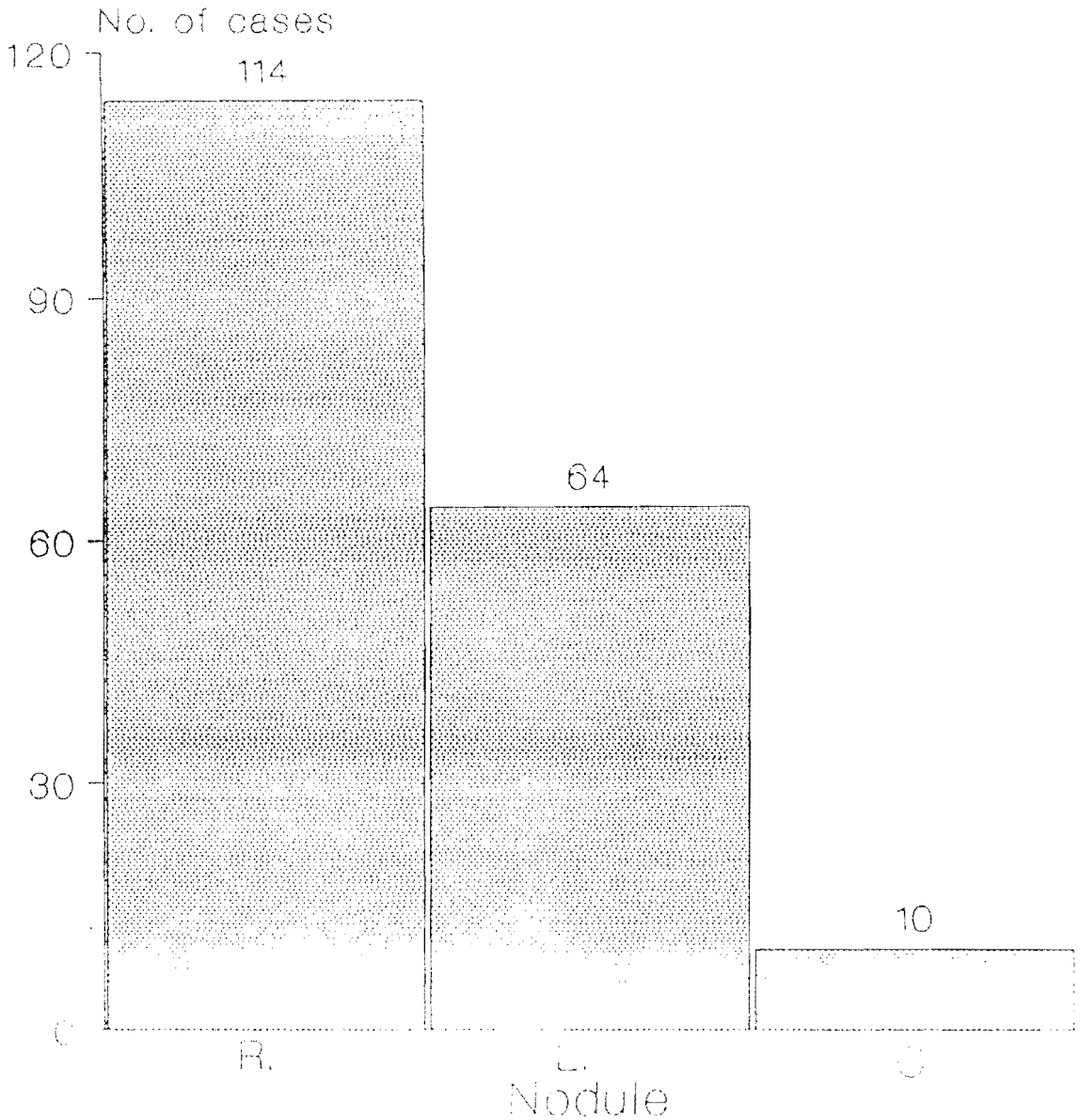


Fig.(2)

siteof thyroid nodule
(118 cases)



نتائج ٥٦٠ عملية غدة درقية

عبد الغني الدباغ
كلية الطب/جامعة بابل

الخلاصة

تم جمع وتحليل ٥٦٠ عملية غدة درقية اجريت في مستشفى الحلة الجراحي من قبل الباحث من الفترة كانون الثاني ١٩٧٩– كانون الثاني ١٩٩٠ .

تمت في هذا البحث دراسة الاعمار والجنس ونوع وحجم الغدة .

تم التأكيد على ضرورة اعطاء هرمونات الغدة الدرقية بعد العملية منعاً لرجوع وتكرار تضخم الغدة ، وكذلك العلاج الجراحي للغدة الدرقية الراجعة .