CARCINOMA DIFFERENZIATO DELLA TIROIDE

Il trattamento chirurgico

A cura di Giancarlo Pansini | Paolo Carcoforo | Mattia Portinari

Università degli studi di Ferrara

Sezione di Clinica Chirurgica

Direttore: Prof. A. Liboni

Una dedica speciale ..

Ippolito G. Donini

Gemellaggio Atene | Ferrara,
Aprile 1977

una Cattedra sul …
Partenone

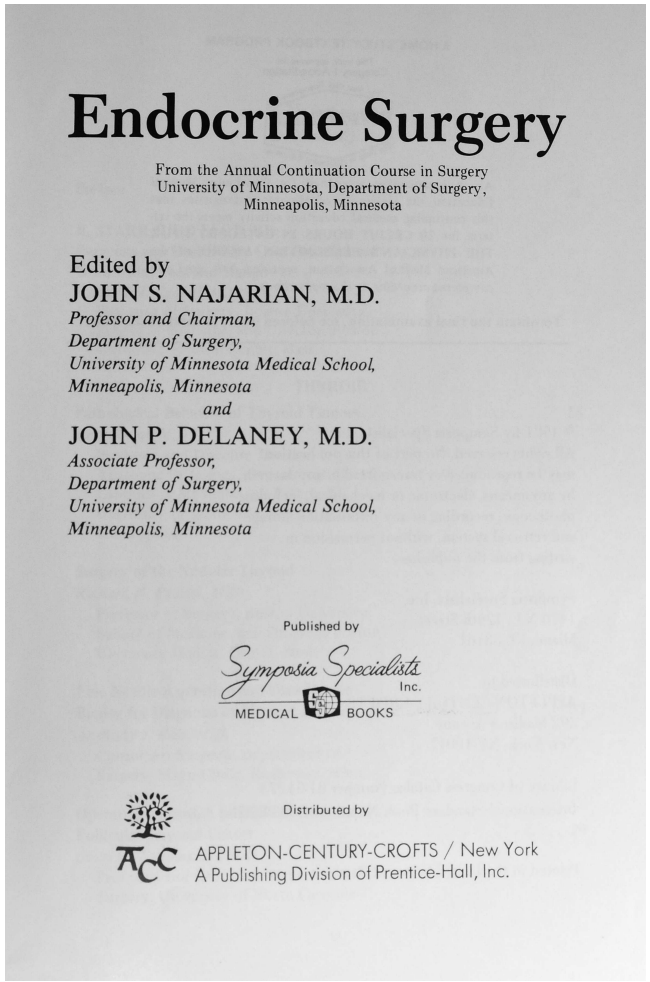
Controversie & Dilemmi

La scelta della estensione della tirodectomia nella terapia chirurgia iniziale

La scelta del trattamento dei linfonodi cervicali

Il rischio delle complicazioni concomitanti

Controversie & Dilemmi: ‘80



Endocrine Surgery

From the Annual Continuation Course in Surgery
University of Minnesota, Department of Surgery,
Minneapolis, Minnesota

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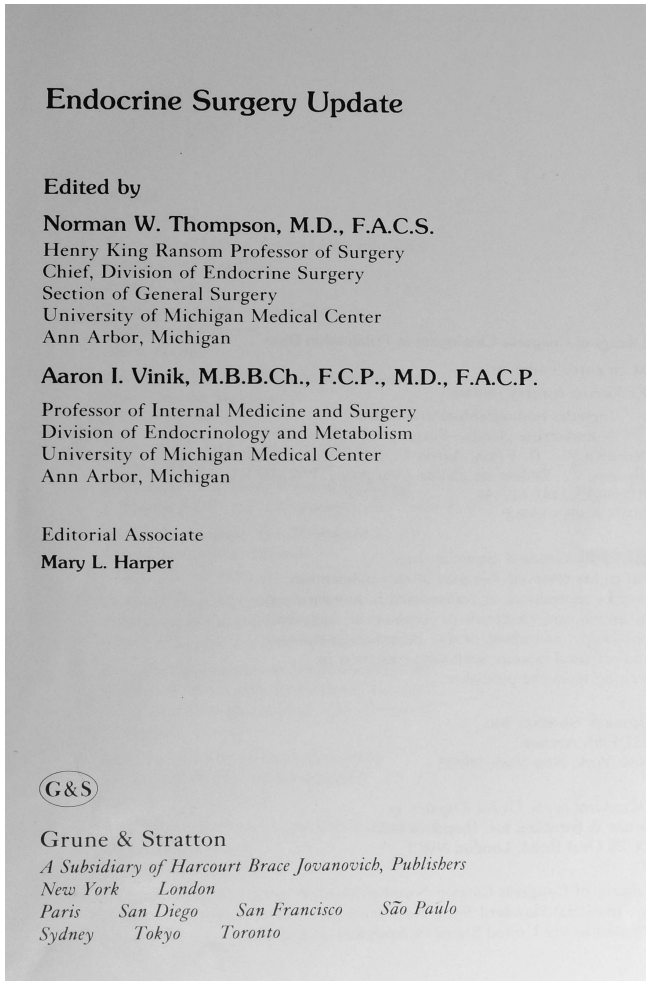
Despite general recognition of the varying biologic behavior of well-differentiated thyroid cancers, their management is controversial

Key Issues:

- The extend of thyroidectomy
- The indications for and the extend of lymph node dissection
- There no randomized prospective clinical trials on the relative merits of the different operative procedures for thyroid cancer

Controversie & Dilemmi: ‘90



Endocrine Surgery Update

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Although there is a general agreement about management of lymph node metastases, the central issue of controversy continues to be the surgery of the primary tumor

Key Issues:

- The extend of thyroidectomy
- The only argument against acceptance of total thyroidectomy is the greater potential for complications

Controversie & Dilemmi: 2013

NCCN National Comprehensive Cancer Network®

Managing differentiated thyroid carcinoma can be a challenge, because no prospective randomized trials of treatment have been done.

Key Issues:

- The appropriate extent of thyroid resection is **very controversial** for lower risk papillary thyroid cancer
- No significative differences were found in cancer-specific mortality or distant metastases rate between total *vs* ipsilateral thyroidectomy
- The morbidity often associated with total thyroidectomy performed outside of major cancer centers is of concern

Optimal Initial Treatment

ONCOLOGY. Vol. 23 No. 7
AREAS OF CONFUSION IN ONCOLOGY

What Is the Optimal Initial Treatment of Low-Risk Papillary Thyroid Cancer (and Why Is It Controversial)?

By Ernest L. Mazzaferri, MD, MACP[1] | 11 giugno 2009
[1]Professor Emeritus, The Ohio State University, and Courtesy Professor of Medicine, Shands Hospital, University of Florida, Gainesville, Florida

- The natural history of papillary thyroid cancer is such that patients who achieve disease-free status after total thyroidectomy and ^{131}-I therapy usually reach normal life expectancy.

Tiroidectomia totale ?

Revised American Thyroid Association Management Guidelines for Patients with Thyroid Nodules and Differentiated Thyroid Cancer

The American Thyroid Association (ATA) Guidelines Taskforce on Thyroid Nodules and Differentiated Thyroid Cancer

THYROID
Volume 19, Number 11, 2009

In caso di carcinoma primitivo di dimensioni >1 cm

In caso di presenza di noduli nel lobo controlaterale

In caso di foci metastatici

Se il paziente ha subito terapia radiante di testa e collo o se un familiare di primo grado ha anamnesi positiva per CDT.

Tiroidectomia totale o parziale?

NCCN National Comprehensive Cancer Network®

From an observational study including > 35.000 patients:

- Survival is similar whether patients undergo lobectomy or total thyroidectomy

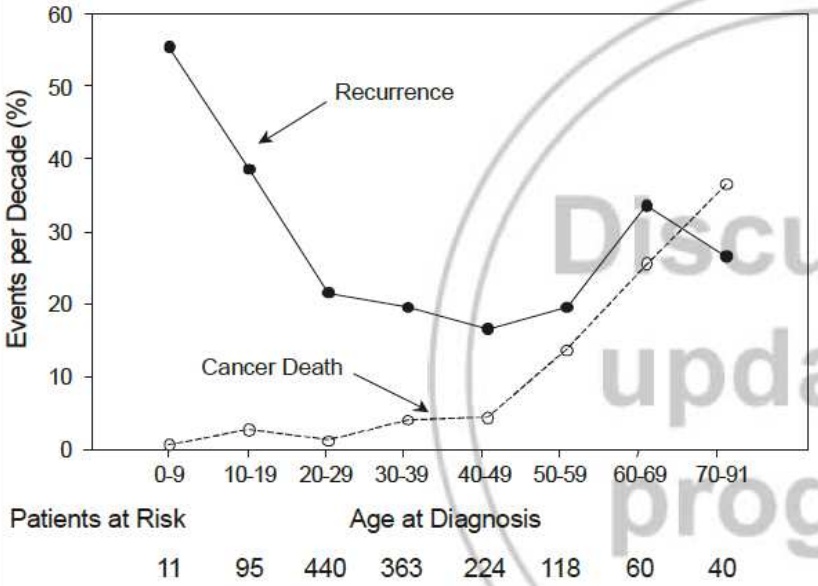
From a multivariate analysis including 52.173 patients:

- Lobectomy-associated recurrence rate is 57%
&
death rate is 21%

NCCN Guidelines Version 1.2013

Figure 1:

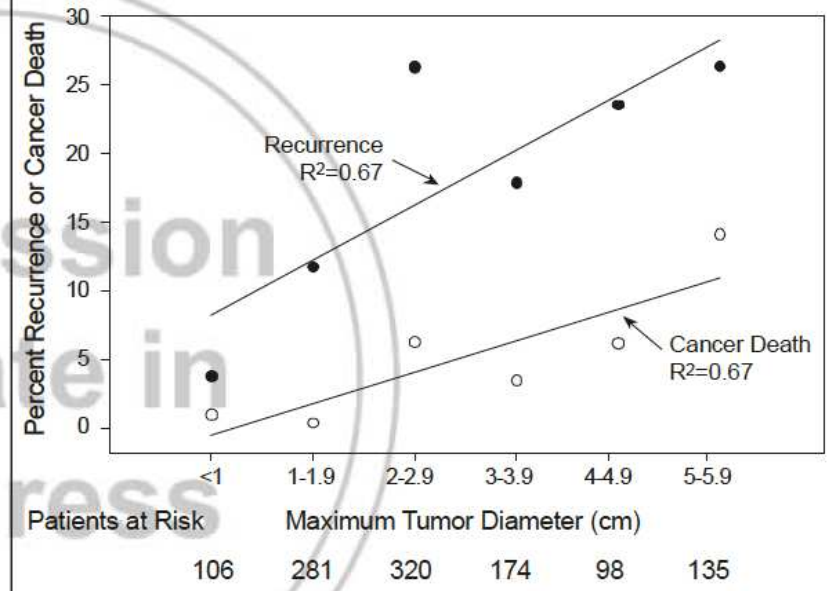
Relationship of cancer recurrence and mortality to patient age at time of diagnosis



(Reprinted and adapted from AM J Med, 97, Mazzaferri EL and Jhiang SM, Long-term impact of initial surgical and medical therapy on papillary and follicular thyroid cancer, pp 418-428, 1994, with permission from Excerpta Medica Inc.).

Figure 2:

Relationship of cancer recurrence and mortality to tumor size



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Tiroidectomia totale o parziale?

Società Italiana Endocrinologia

Società Italiana di Endocrinochirurgia

Associazione Italiana di Medicina Nucleare ed *Imaging Molecolare*

Il trattamento iniziale del CDT è chirurgico e si basa sulla tiroidectomia totale o "quasi totale".

L'intervento di lobectomia ed istmectomia è considerato solo nel caso di carcinoma papillare unifocale di diametro < 1 cm, scoperto incidentalmente.

Tale opzione deve essere discussa con il paziente dopo una chiara esposizione del problema.

Cosa facciamo noi…

Tiroidectomia Totale

374 Casi di CDT(Papillare)
2004 | 2011
Recidive 1,3% (5 casi)
Mortalità 0%

Studio P. Carcoforo | M. Portinari
Istituto di Clinica Chirurgica
2004 | 2011
374 CDT|Papillare

Trattamento dei LN(0) cervicali

Review Article

Controversies in the Management of Papillary Thyroid Cancer Revisited

Marlon A. Guerrero[1] and Orlo H. Clark[2]

[1] *Department of Surgery, University of Arizona, 1501 N. Campbell Avenue, P.O. Box 245131, Tucson, AZ 85724, USA*
[2] *Department of Surgery, University of California, San Francisco, CA 94143, USA*

- The issue that remains is whether the presence of microscopic lymph node metastases has any adverse effect on clinical outcome
- Several reports have demonstrated that performing a routine *profilactic* CND during total thyroidectomy is associated with a higher morbidity than thyroidectomy alone

International Scholarly Research Network
ISRN Oncology
Volume 2011, Article ID 303128, 5 pages

Trattamento dei LN(0) cervicali

Clinical
THYROIDOLOGY
VOLUME 24 • ISSUE 10 OCTOBER 2012

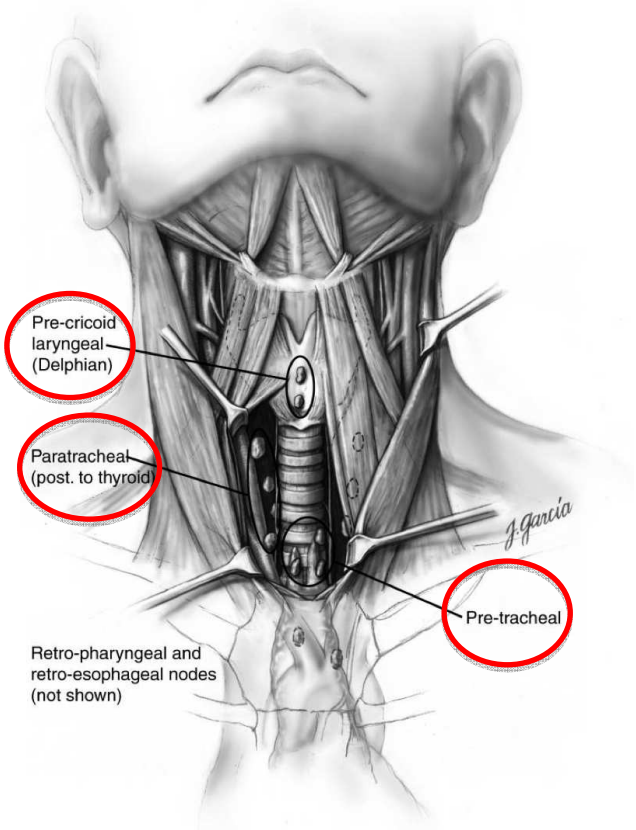
EDITORIAL

Prophylactic Central-Neck Dissection for Papillary Thyroid Carcinoma: A Thin Line between Benefit and Risk

- **Eliminating all disease remains elusive** and the prognostic significance of cervical disease persistence and recurrence is still unknown
- Argument against prophylactic CND mainly concern the complications
- The high price of complications is not counterbalanced by any measurable oncologic gain

Trattamento dei LN(0) cervicali

Linee Guida SIE-AIMN-AIFM per il Trattamento e Follow-up del Carcinoma Differenziato della Tiroide | 2004



- Lo svuotamento del compartimento centrale del collo dovrebbe essere eseguito in tutti i casi.
- La linfoadenectomia “di principio” delle altre catene cervicali, a scopo profilattico, non é invece la terapia di scelta nel carcinoma tiroideo differenziato.
- La linfoadenectomia omolaterale deve essere eseguita solo in caso di metastasi linfonodali documentate.

Officina Ferrarese

Linfoadenectomia selettiva compartimentale radioguidata nel CDT

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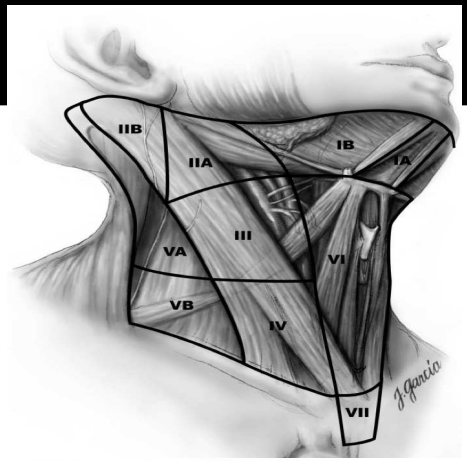
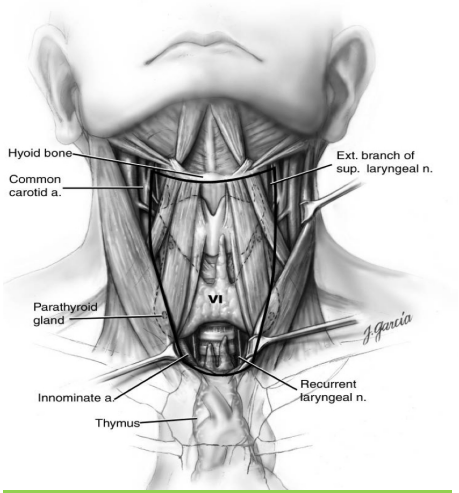
Istituto di Clinica Chirurgica

Popolazione dello studio 374 pazienti

Periodo	02/2004 | 12/2011
Follow-up	35.5 mesi (range 7-18)
Carcinoma Papillare	345
Carcinoma Follicolare	2
Lesione benigna	27
Carcinoma infiltrante	182 (52.8%)
Carcinoma multifocale	108 (31.3%)
Lesione bilaterale pre|op	12 (3.5%)
Carcinoma bilaterale po|op	61 (17.7%)

Officina Ferrarese





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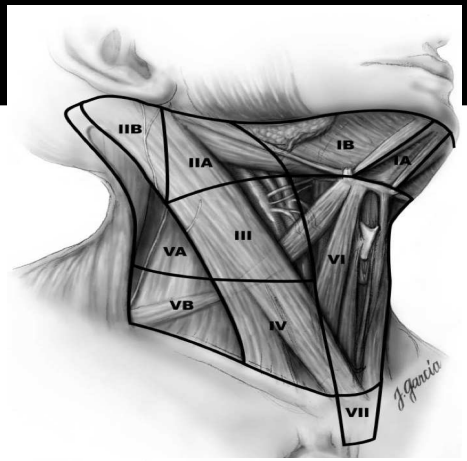
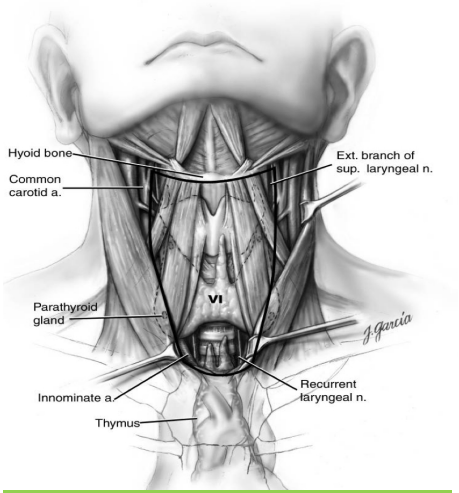
Compartimento del Linfonodo Sentinella

Livello VI omolaterale	270 (72.2%)
Livello III | IV omolaterale	86 (23.0%)
Livello VI controlaterale	7 (1.9%)
Livello III | IV controlaterale	4 (1.1%)
Livello VI bilterale	2 (0.5%)
Livello VI | III | IV omolaterale	4 (1.1%)
Livello III | IV | VI controlaterale	1 (0.2%)
Drenaggio linfatico alternativo	27%

Officina Ferrarese





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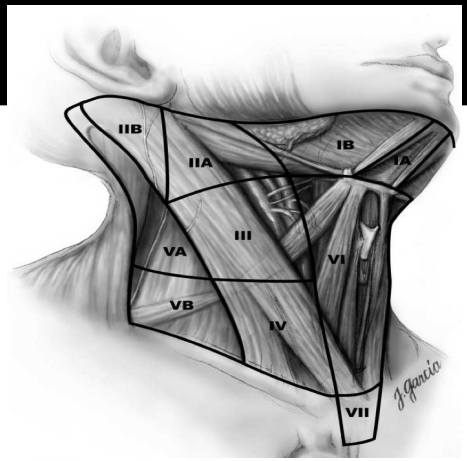
Istituto di Clinica Chirurgica

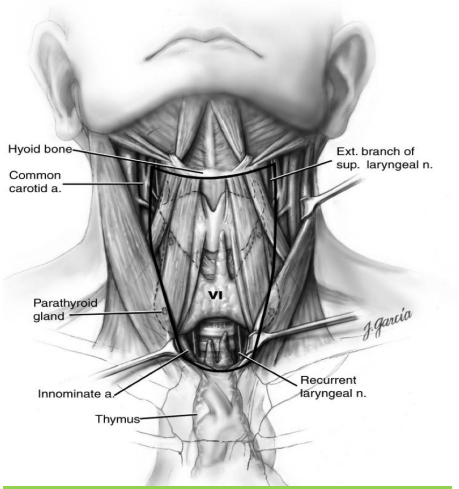
Compartimenti interessati dalle metastasi

Livello VI omolaterale	72 (77.4%)
Livello III | IV omolaterale	17 (18.3%)
Livello VI controlaterale	3 (3.2%)
Livello VI | III | IV omolaterale	1 (1.1%)

Metastasi Linfonodali in sedi alternative 22.6%

Officina Ferrarese





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Metastasi linfonodali riscontrate

	N	NSLN (+) (%)	NSLN (–) (%)
Pazienti con CPT	345		
SLN (+)	55 (15.9%)	28 (50.9%)	27 (49.1%)
SLN (–)	290 (84.1%)	38 (13.1%)	252 (86.9%)

Metastasi linfonodali riscontrate 93 (27%)

Trattamento dei LN(0) cervicali

American Thyroid Association Design and Feasibility of a Prospective Randomized Controlled Trial of Prophylactic Central Lymph Node Dissection for Papillary Thyroid Carcinoma

Tobias Carling,[1] Sally E. Carty,[2] Maria M. Ciarleglio,[3] David S. Cooper,[4] Gerard M. Doherty,[5] Lawrence T. Kim,[6] Richard T. Kloos,[7] Ernest L. Mazzaferri Sr.,[8] Peter N. Peduzzi,[3]

- A prospective randomized controlled trial of prophylactic central lymph node dissection in cN0 PTC is not readily feasible
- Prohibitively large sample sizes would be required to detect statistically and clinically relevant differences
- No single institution could perform this study alone

THYROID
Volume 22, Number 3, 2012

Complicazioni

The American Association of Endocrine Surgeons
Patient Education Site

Surgery to remove the thyroid gland is well tolerated and has low complication rates, when performed by an experienced thyroid surgeon. In general, thyroid surgery is very safe and has a low risk of major complications.

Bleeding in the neck — occurs only in about 1/300 thyroid operations

Temporary voice changes, such as mild hoarseness, voice tiring, and weakness — are more common and can happen in 5 to 10% of patients. Permanent nerve palsy is extremely rare.

Hypoparathyroidism — The chance that all four parathyroid glands would not be able to function permanently is about 2-3%.

Complicazioni

World Journal of Surgery | 2004, 28, 3, pp271-276
Complications of Thyroid Surgery: Analysis of a Multicentric Study on 14,934 Patients Operated on in Italy over 5 Years
L. Rosato et al.

Temporary hypoparathyroidism	8.3%
Damage of the SLRN	3.7%
Transient palsy of the ILRN	2.0%
Persistent hypoparathyroidism	1.7%
Dysphagia	1.4%
Hemorrhage	1.2%
Permanent palsy of the ILRN	1.0%
Diplegia of the ILRN	0.4%
Wound infection	0.3%

No deaths were reported

Complicazioni

I.G. Donini, G. Pansini | Da Atene a Ferrara, aprile 1977

Disfonia transitoria	9.1%
Ipoparatiroidismo temporaneo	5.1%
Sanguinamento|reintervento	1.6%
Disfonia permanente	1.3%
Infezione di ferita	0.3%
Decessi	**0.0%**

Studio P. Carcoforo | M. Portinari
Istituto di Clinica Chirurgica
2004 | 2011
374 CDT|Papillare

Complicazioni

EndocrineSurgeon.co.uk

The definitive source of information about endocrine surgery for patients and professionals

Bleeding in the 19th Century

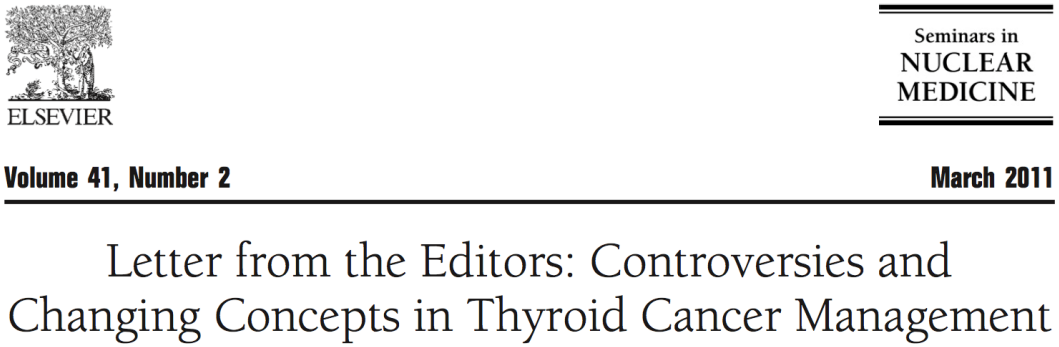
Samuel Gross:"Can the thyroid in the state of enlargement be removed? Emphatically experience answers no. Should the surgeon be so foolhardy to undertake it....every stroke of the knife will be followed by a torrent of blood and lucky it would be for him if his victim lived long enough for him to finish his horrid butchery. ***No honest and sensible surgeon would ever engage in it****"*

Bleeding in the 21th Century

In a recent study, Foreman (Ann. R. Coll. Surg. Engl. 2009) showed that **hemostatic surgical devices** are no less safe than traditional methods such as "clip, cut and ligate" or the use of small metallic clips in achieving haemostasis.

In 2007 a young female thyrotoxic patient died in a major London teaching hospital after a thyroidectomy from bleeding. The use of the hemostatic surgical devices as the only means of haemostasis must in the light of Foreman's findings be considered as coincidental. The Westminster Coroner was highly critical of the patients care. **The main lesson for patients from this tragic case is that one must be managed on a ward that is used to dealing with thyroidectomies. If they are not we suggest that the patient discharges themself and comes back another day when a specialist bed is available.**

Tra Passato & Futuro



- We certainly have come a long way and learned quite a lot
- However, it is also quite clear that we still have a lot to learn
- Some answers, from molecular medicine are expected