



chirurgia nella patologia tiroidea benigna: tecnica e risultati

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epidemiologia del nодulo tiroideo

AME, ACE, AACE 2016

dato epidemiologico	esame clinico (palpazione)	esame strumentale (ecografia)
prevalenza (totale casi/popolazione)	3-7% dei quali <ul style="list-style-type: none">• il 20-40% presenta altri noduli alle indagini strumentali	tra 20 e 76%
incidenza (casi/anno)*	0.1% (350.000 nuove diagnosi all'anno)	

* dati relativi agli Stati Uniti

Italian Consensus, 2014	BSRTC	UK – RCPATH
TIR 1. Non diagnostic	I Non diagnostic	Thy 1. Nondiagnostic
TIR 1c. Non diagnostic cystic	I Cystic fluid only	Thy 1c. Unsatisfactory, consistent with cyst
TIR 2. Non malignant	II Benign	Thy 2/Thy 2c. Non neoplastic
TIR 3A Low risk – indeterminate lesion	III AUS/FLUS atypia or follicular lesion of undetermined significance	Thy 3a Neoplasm possible: atypia/non diagnostic
TIR 3B Suspicious for malignancy	IV Follicular neoplasm or suspicious	Thy 3f Neoplasm possible: suggestive of follicular neoplasm
TIR 4 Suspicious for malignancy	V Suspicious for malignancy	Thy 4 Suspicious for malignancy
TIR 5 Malignant	VI Malignant	Thy 5 Malignant
Abbreviations: AME = Associazione Medici Endocrinologi; AUS/FLUS = follicular lesion/atypia of undetermined significance; BSRTC = Bethesda System for Reporting Thyroid Cytopathology; TIR = Thyroid Imaging Reporting; Thy = thyroid; UK-RCPATH = UK Royal College of Pathologists.		

patologie nodulari

percentuale

patologie benigne

65 - 78%

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THYROID NODULES – 2016 UPDATE

APPENDIX

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This document is intended to serve as a guide for the management of thyroid nodules. It is anticipated that significant changes in this area are expected, periodic revision is inevitable. We encourage medical professionals to use this information in conjunction with their local clinical judgment and to adapt it to practice as appropriate. No practice guidelines can be made in light of local resources and individual patient circumstances and preferences.



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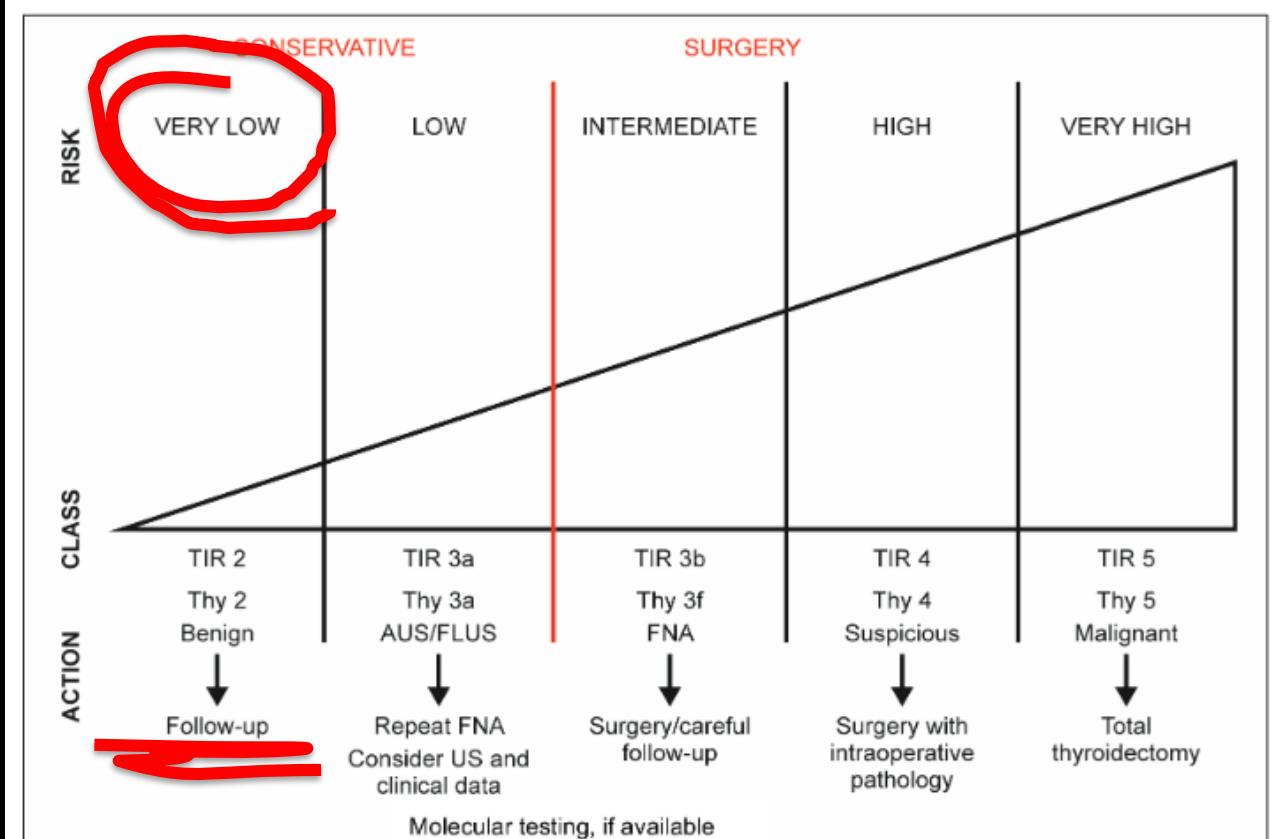


Fig. 3. Cytologic categories and suggested clinical actions. AUS/FLUS indicates follicular lesion/atypia of undetermined significance. FNA = fine-needle aspiration; TIR = Thyroid Imaging Reporting; Thy = thyroid; US = ultrasonography.

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This document is intended to serve as a guide for the practice of medicine. As new evidence and clinical experience are gained, rapid changes in this area are expected, periodic revision is inevitable. We encourage medical professionals to use this information in conjunction with their local clinical judgment and to apply these guidelines more broadly in light of local resources and individual patient circumstances and preferences.



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surgical indications for benign nodules

- neck pressure
- dysphagia
- globus sensation
- shortness of breath (especially when in the supine position)
- dyspnea on exertion
 - it is important to verify that the **symptoms** are **caused by the nodular thyroid** and not related to pulmonary or cardiac disease, esophageal disorders or other head, neck, or lung tumors
- appearance of sudden and persistent dysphonia

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This document is intended to provide a general guide to the practice of medicine. It is not a substitute for individual judgment or clinical judgment by practitioners to apply these guidelines must be made in light of local resources and individual patient circumstances and preferences.



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- if a thyroid nodule undergoes a **suspicious change** in its US features or increases in **volume** and becomes **symptomatic**, surgical resection should be considered despite benign FNA results

- accordingly, for **benign nodules >4 cm**, surgery should be considered given the higher incidence of neoplastic disease present in large and progressively growing nodules

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relevant concerns

- cost of surgery
- frequent need for life-long substitution therapy
- risk of complications

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This document is intended to serve as a guide for the practice of medicine. As knowledge and technology in this field change, regular changes in this area are expected, periodic revision is inevitable. We encourage medical professionals to use this information in conjunction with their best clinical judgment and to update it as necessary. The responsibility for practitioners to apply these guidelines must be made in light of local resources and individual patient circumstances and preferences.



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preoperative evaluation

- age
- personal or family history of thyroid disease or cancer
- previous head or neck irradiation

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preoperative evaluation

- review US and cytologic results with the patient, discuss treatment options
- vocal cord assessment with direct laryngoscopy
- US examination of the neck

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Preoperative evaluation

- ECT:

- thyroid dimensions and consistency
- location, consistency, size, and number of nodule(s)
- proximity with neck vessels, trachea, inferior laryngeal nerve
- cervical adenopathy
 - ECT, FNA, TG in FNA washout
- CT or MR scan
 - “plongeant” nodules

- consenso informato
- tecnica chirurgica e le possibili complicanze
- lesione o mutilazione d'organo

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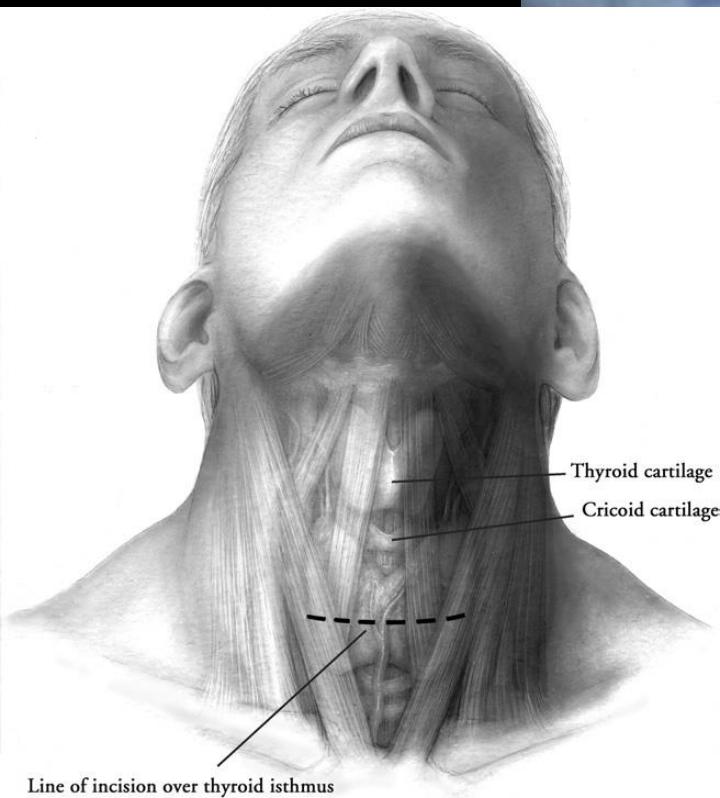
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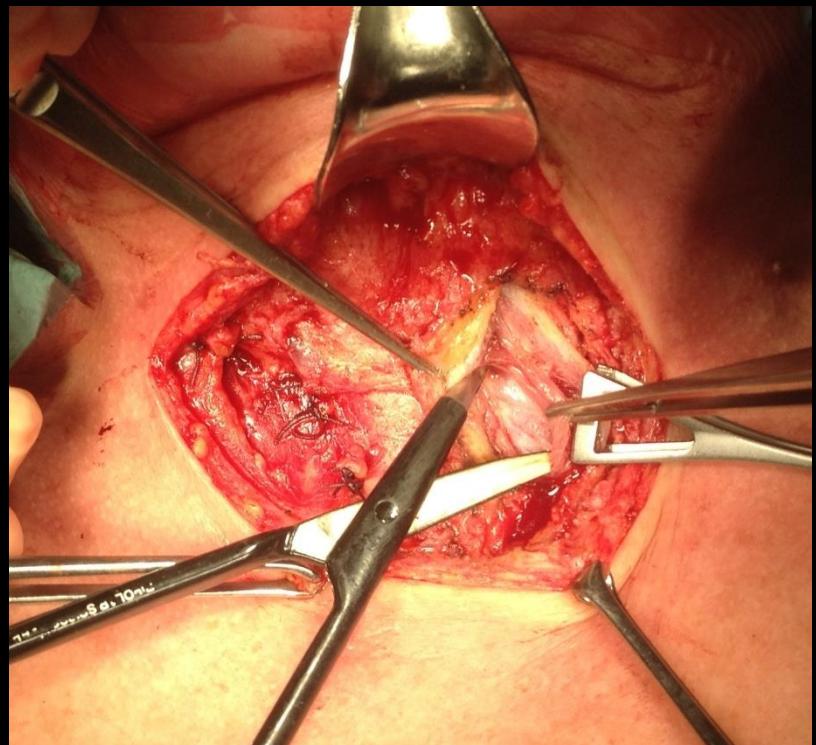
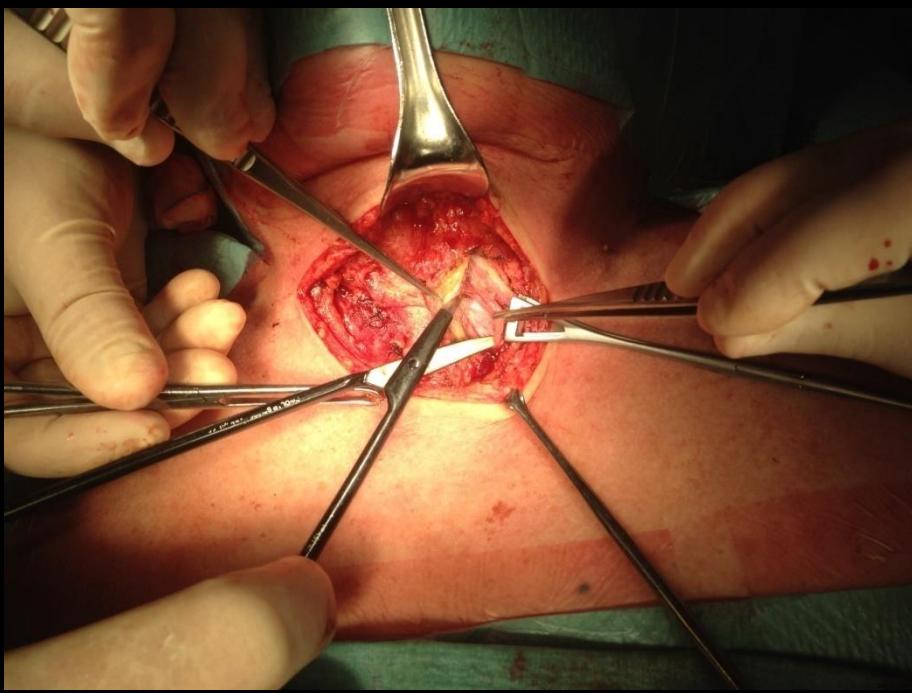
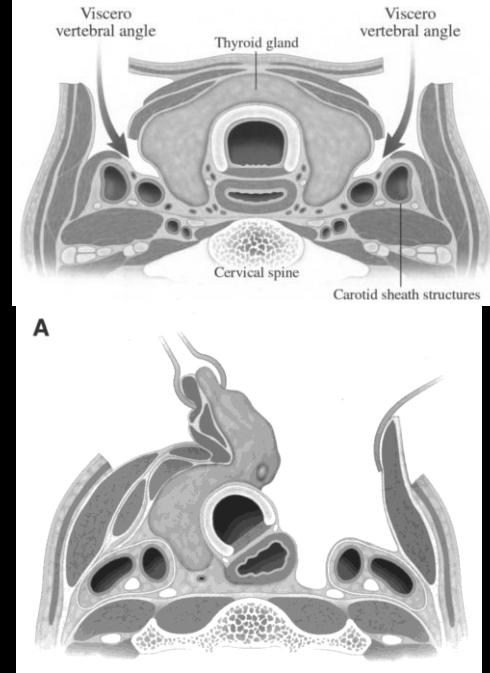
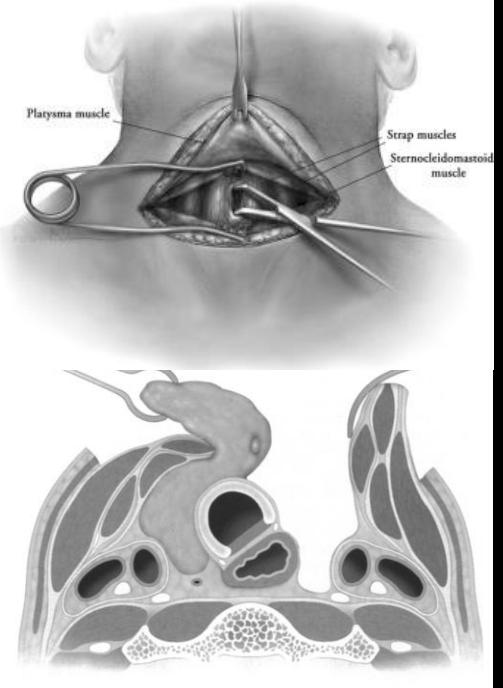
- the preferred extent of resection for benign uninodular goiter is **lobectomy plus isthmectomy**

- for MNG, it is **total thyroidectomy**

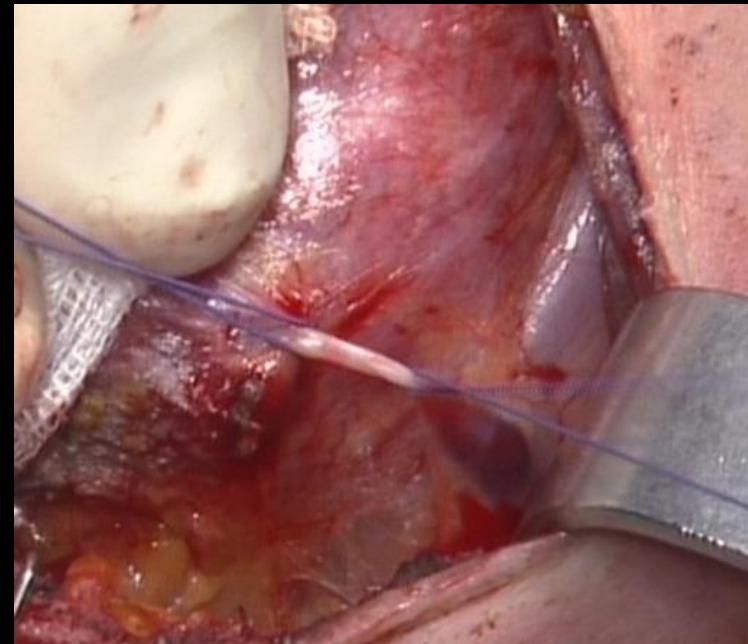
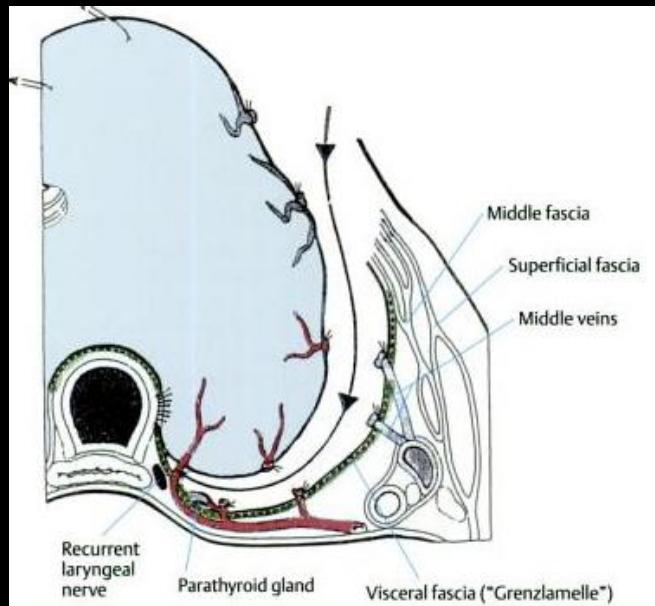
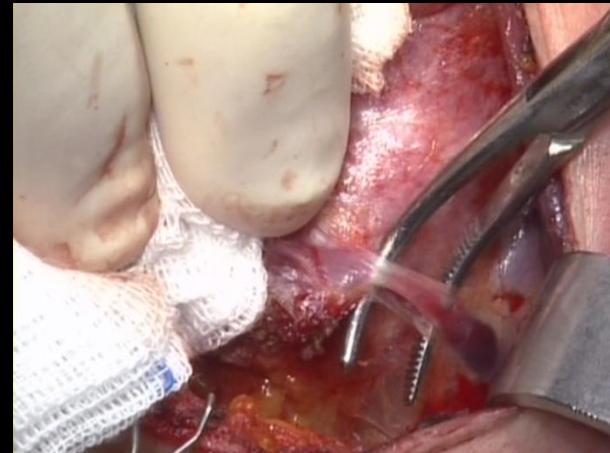
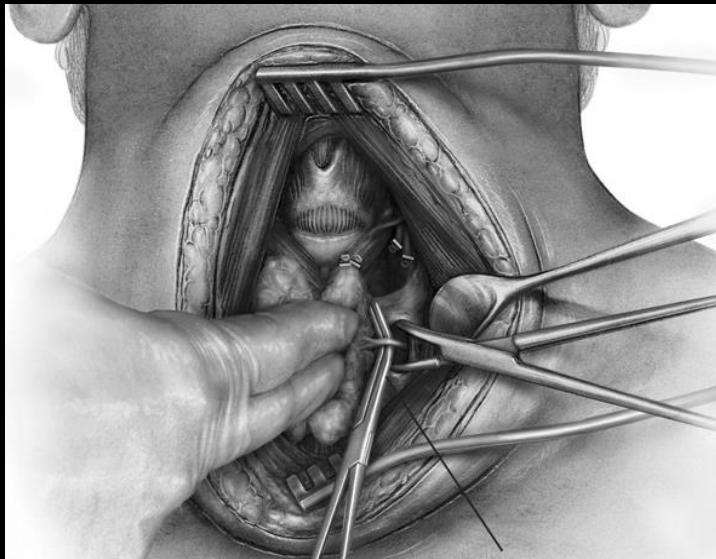


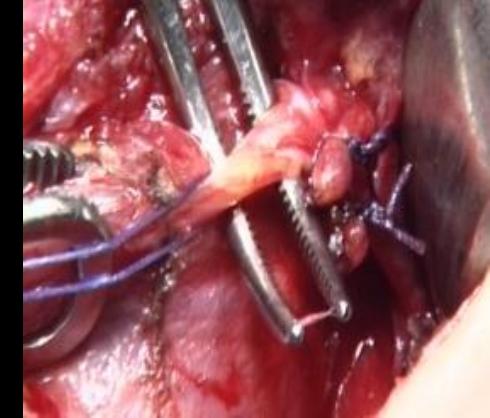
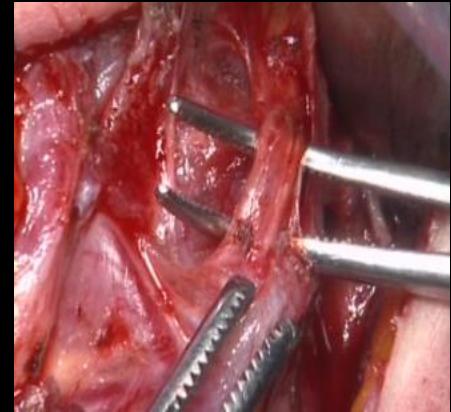
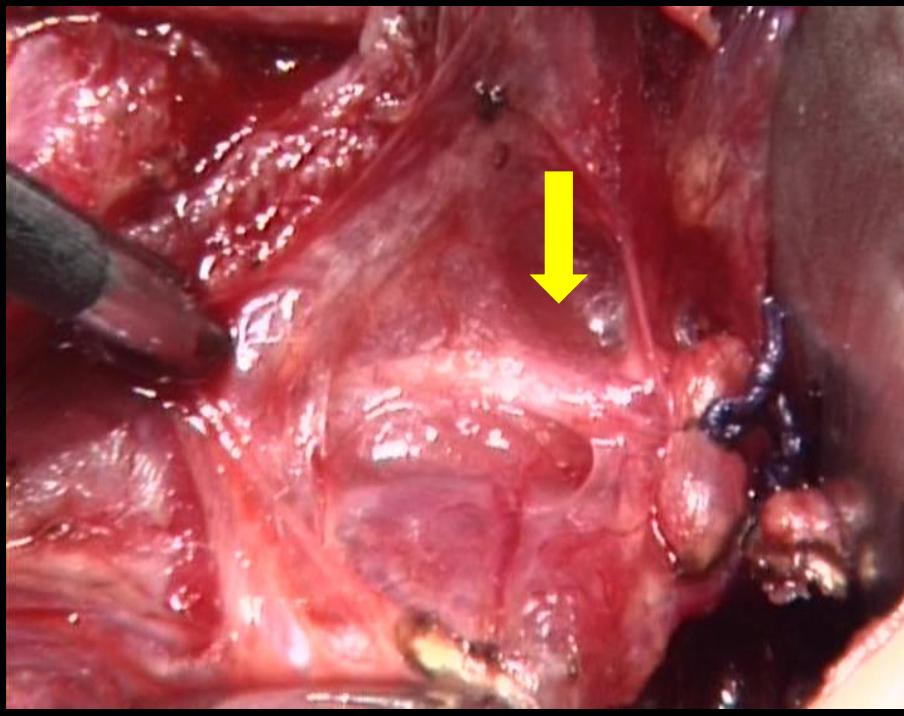
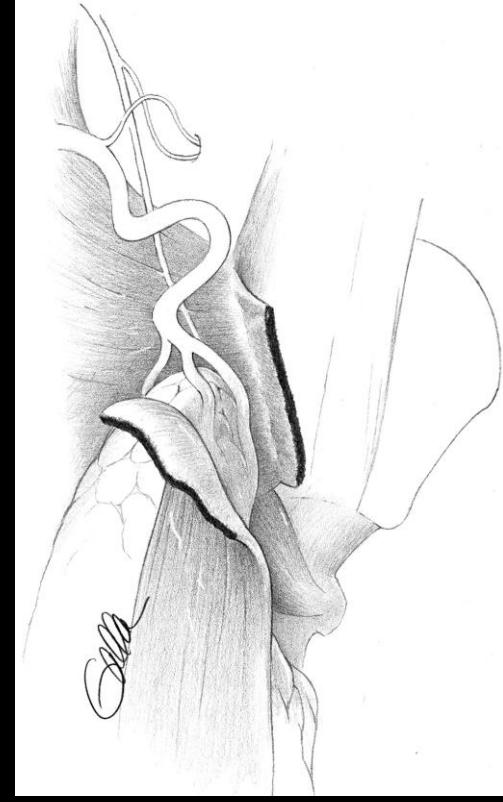
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ACCESSO ALLA LOGGIA TIROIDEA



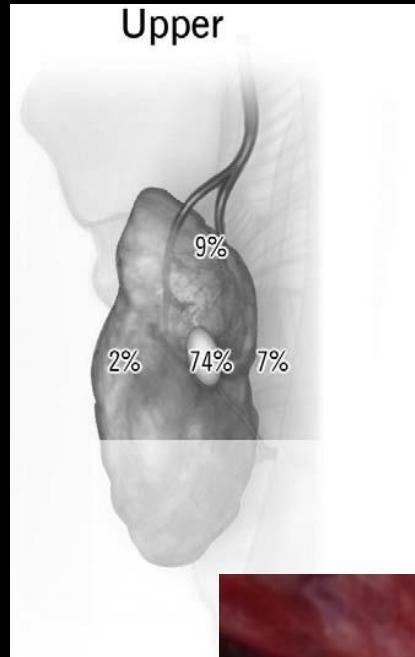
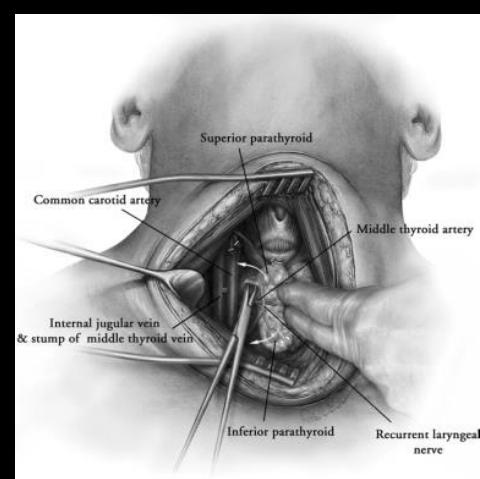
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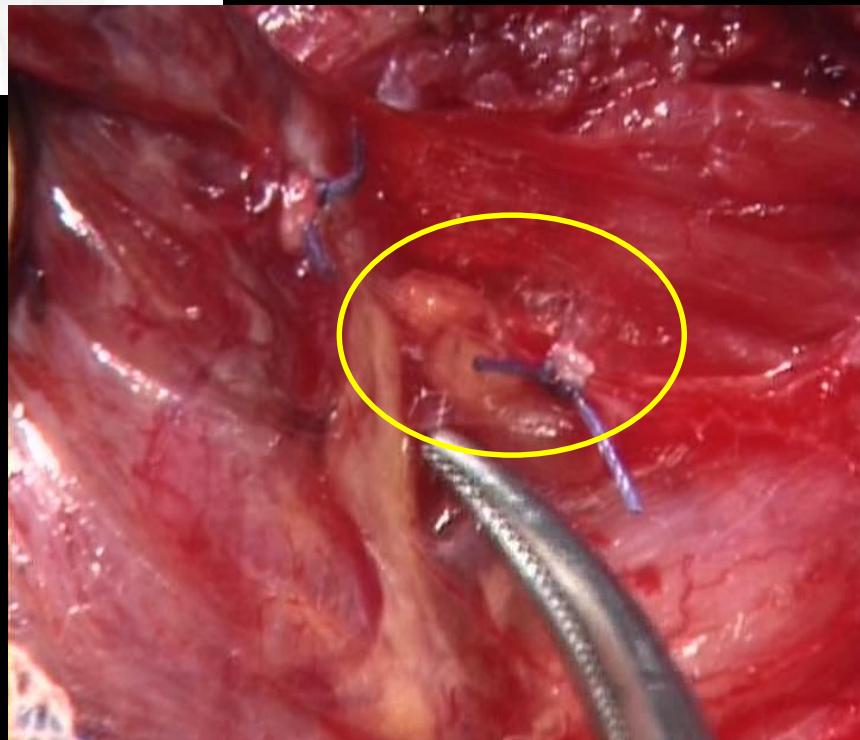
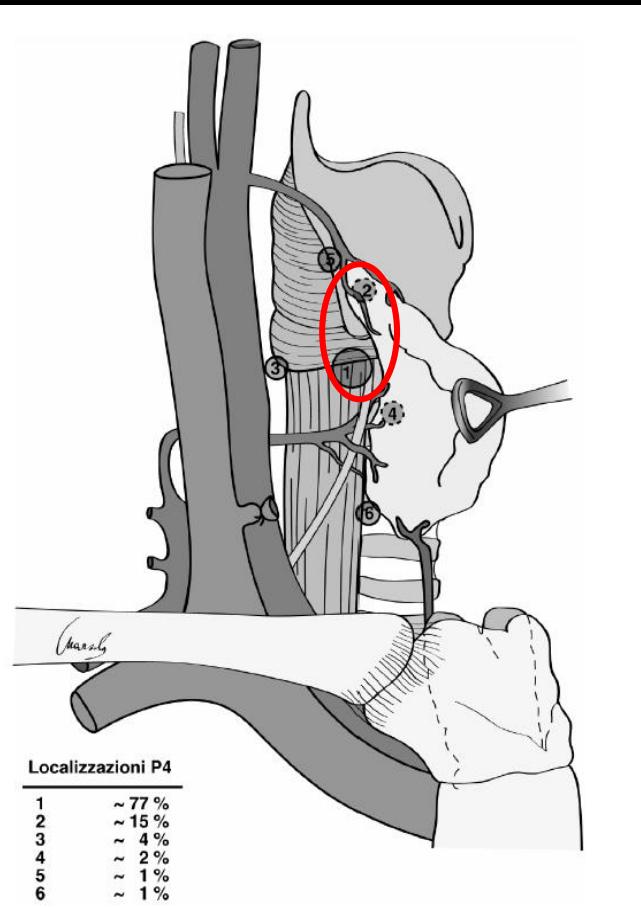


PEDUNCOLO TIROIDEO SUPERIORE
NERVO LARINGEO SUPERIORE





PARATIROIDE SUPERIORE



SOLCO TRACHEOESOFAGEO

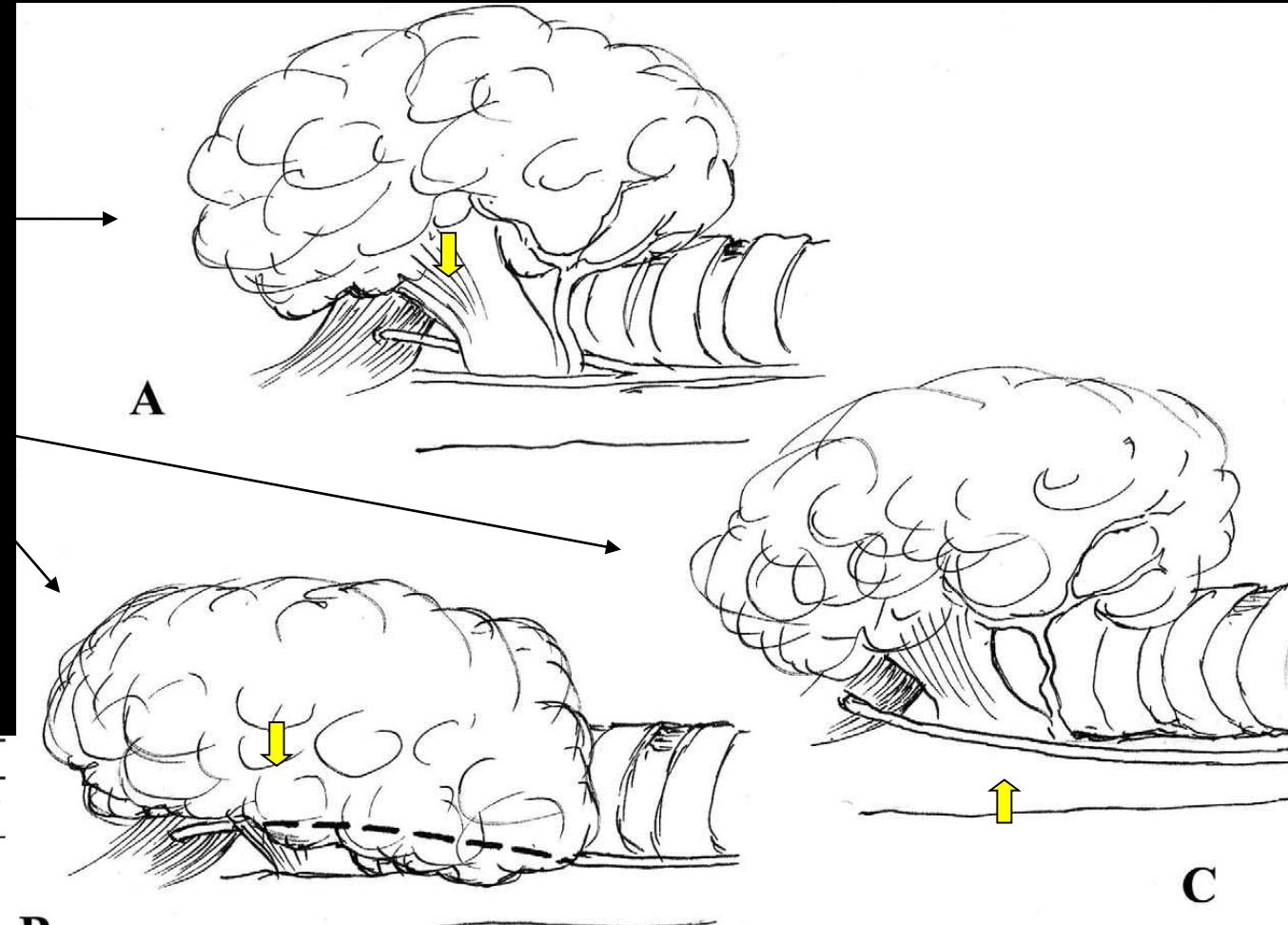
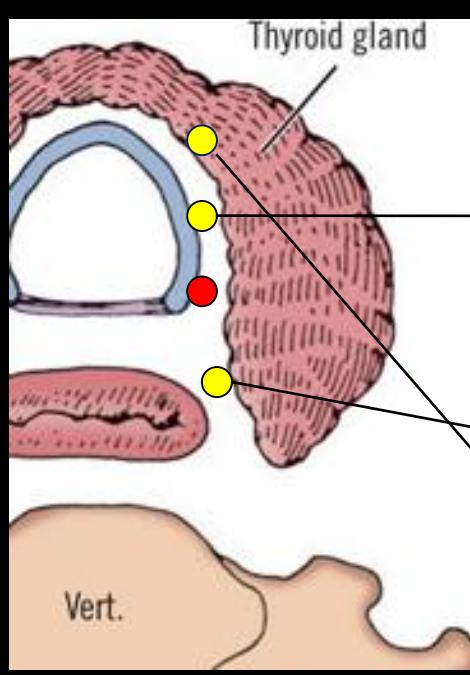


Table 1. Relation of the RLN with tracheoesophageal sulcus.

Author(s)	Anterior to the sulcus	In the sulcus	Posterior to the sulcus
Berlin and Lahey ¹⁷	—	44/44 (100)	—
Berlin ¹⁰	49/140 (35)	91/140 (65)	—
Armstrong and Hinton ⁷	16/40 (40)	24/40 (60)	—
Bowden ¹¹	6/55 (11)	49/55 (89)	—
Skandalakis et al ¹⁹	94/204 (46)	99/204 (49)	11/204 (5)
Steinberg et al ³⁹	54/180 (30)	126/180 (70)	—
Al-Salhi and Dabbagh ¹⁵	36/212 (17)	176/212 (83)	—
Our results	82/197 (42)	65/197 (33)	50/197 (25)
Meta-analysis	337/1072 (31)	674/1072 (63)	61/1072 (6)

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Otolaryngology

HEAD & NECK—DOI 10.1002/hed Month 2011

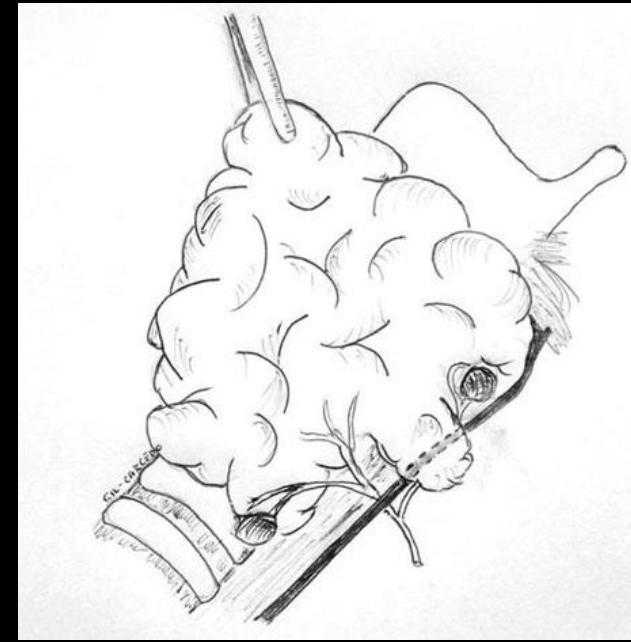
RECURRENT LARYNGEAL NERVE LANDMARKS REVISITED

Elham Asgharpour, MD, PhD,¹ Eva Maranillo, MD, PhD,¹ Jose Sañudo, MD, PhD,¹
Aran Pascual-Font, PhD,¹ Marc Rodriguez-Niedenführ, MD, PhD,¹ Francisco J. Valderrama, PhD,¹
Fermín Viejo, MD, PhD,¹ Ian G. Parkin, MD, PhD,² Teresa Vázquez, PhD¹

Thyroid lobectomy: operative anatomy, technique, and morbidity

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Nestor R. Rigual, MD^{c,d}

TUBERCOLO DI ZUCKERKANDL



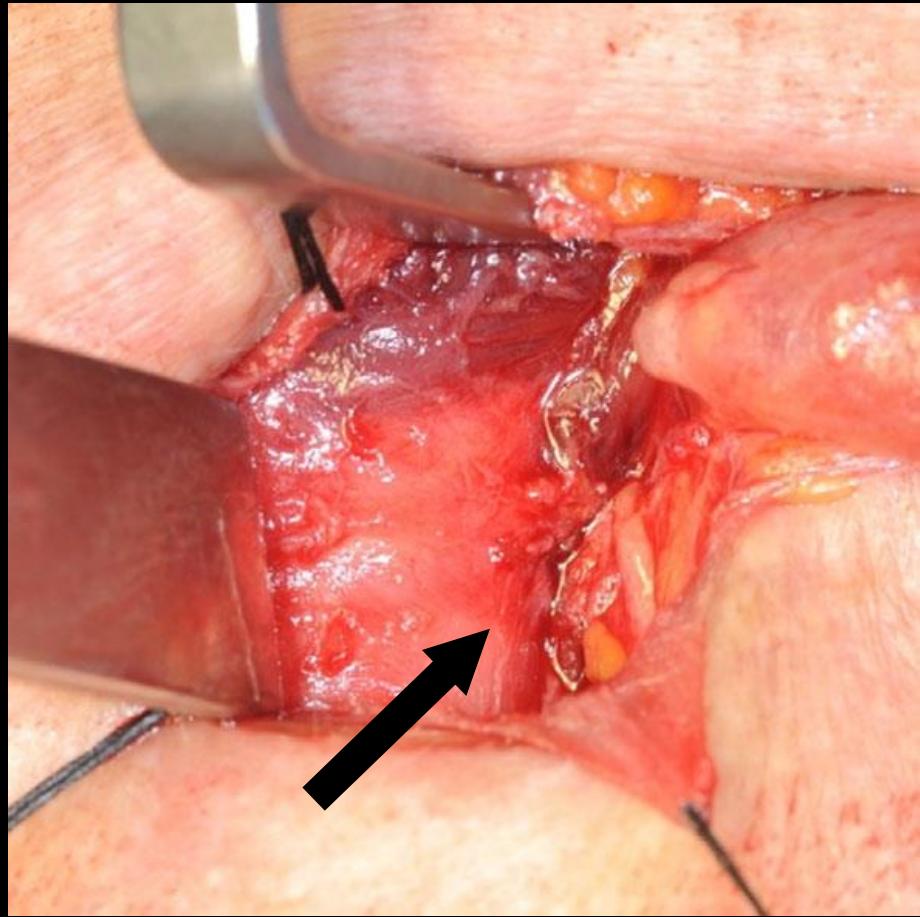
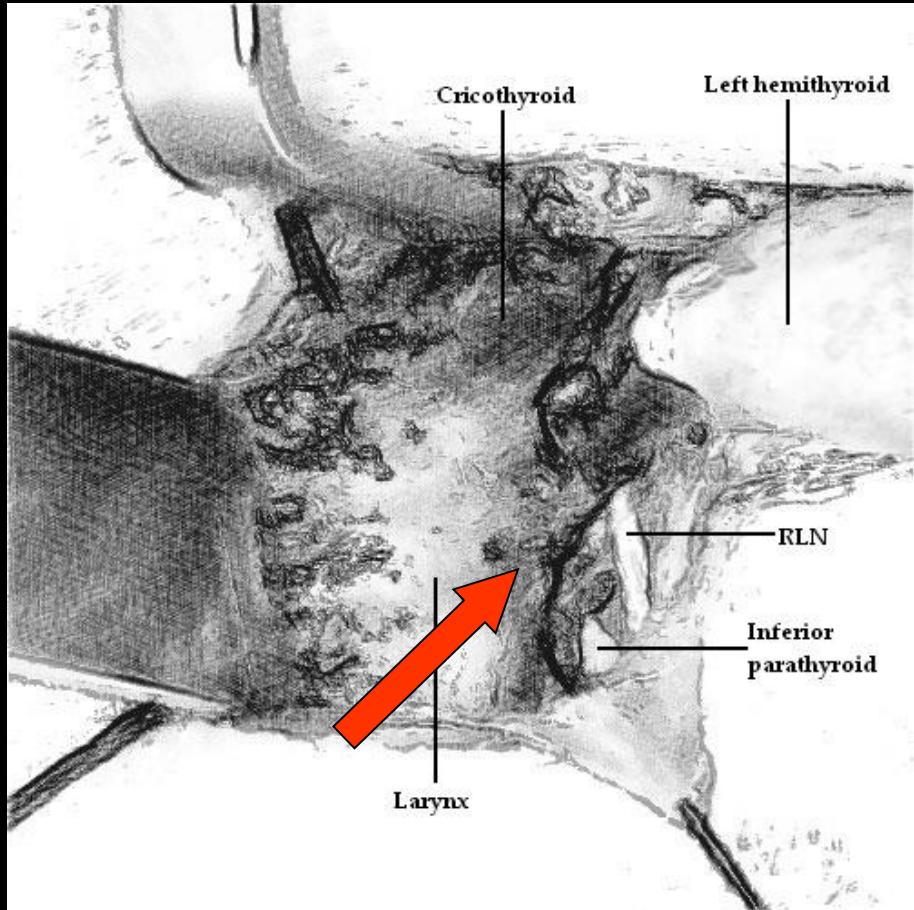
Eur Arch Otorhinolaryngol (2013) 270:2327–2332
DOI 10.1007/s00405-012-2334-7

HEAD AND NECK

The Zuckermandl tubercle: problematic or helpful in thyroid surgery?

Elisa Gil-Carcedo · María E. Menéndez ·
Luis A. Vallejo · David Herrero · Luis M. Gil-Carcedo

APPROCCIO SUPERIORE



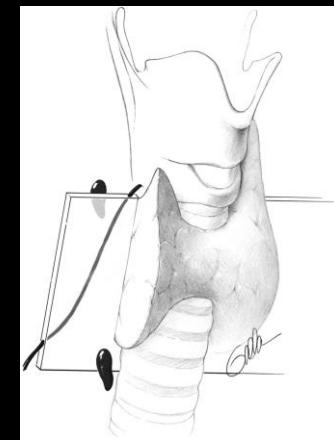
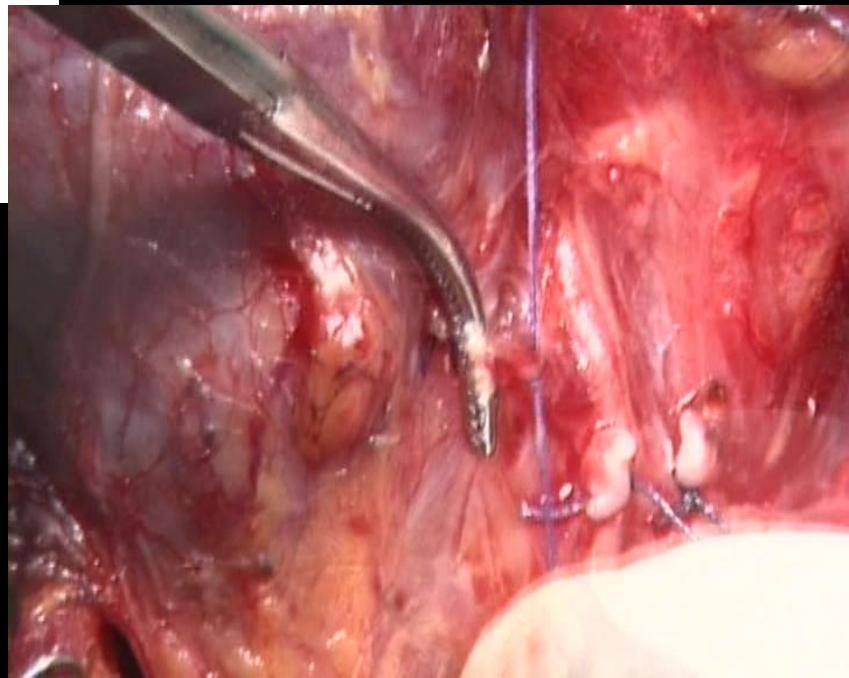
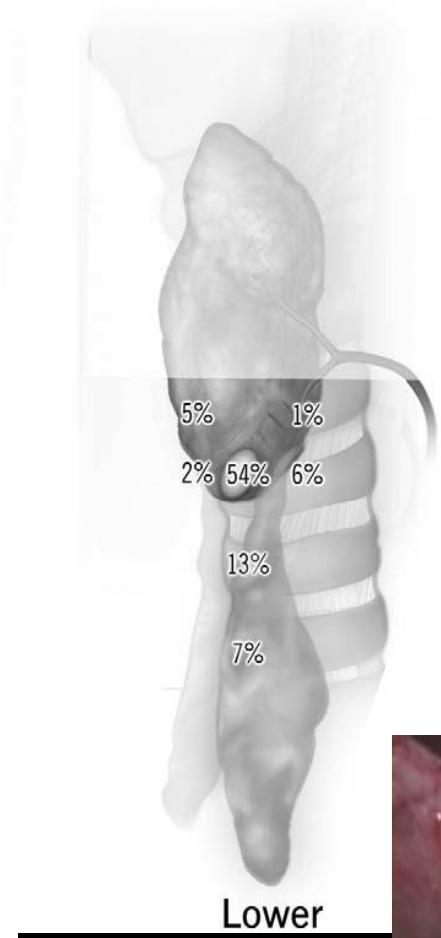
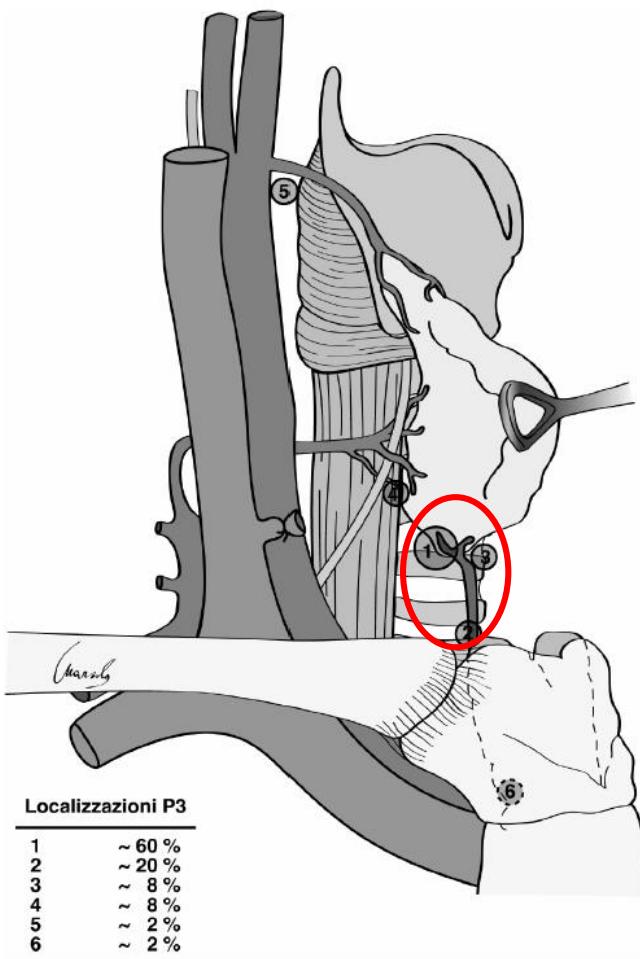
**Identification of the recurrent laryngeal nerve at the cricothyroid joint:
Our experience of 181 thyroid procedures**

Sykes, R.F.,^{*} Moorthy, R.,[†] Olaleye, O.,[‡] & Black, I.M.[§]

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PARATIROIDE INFERIORE

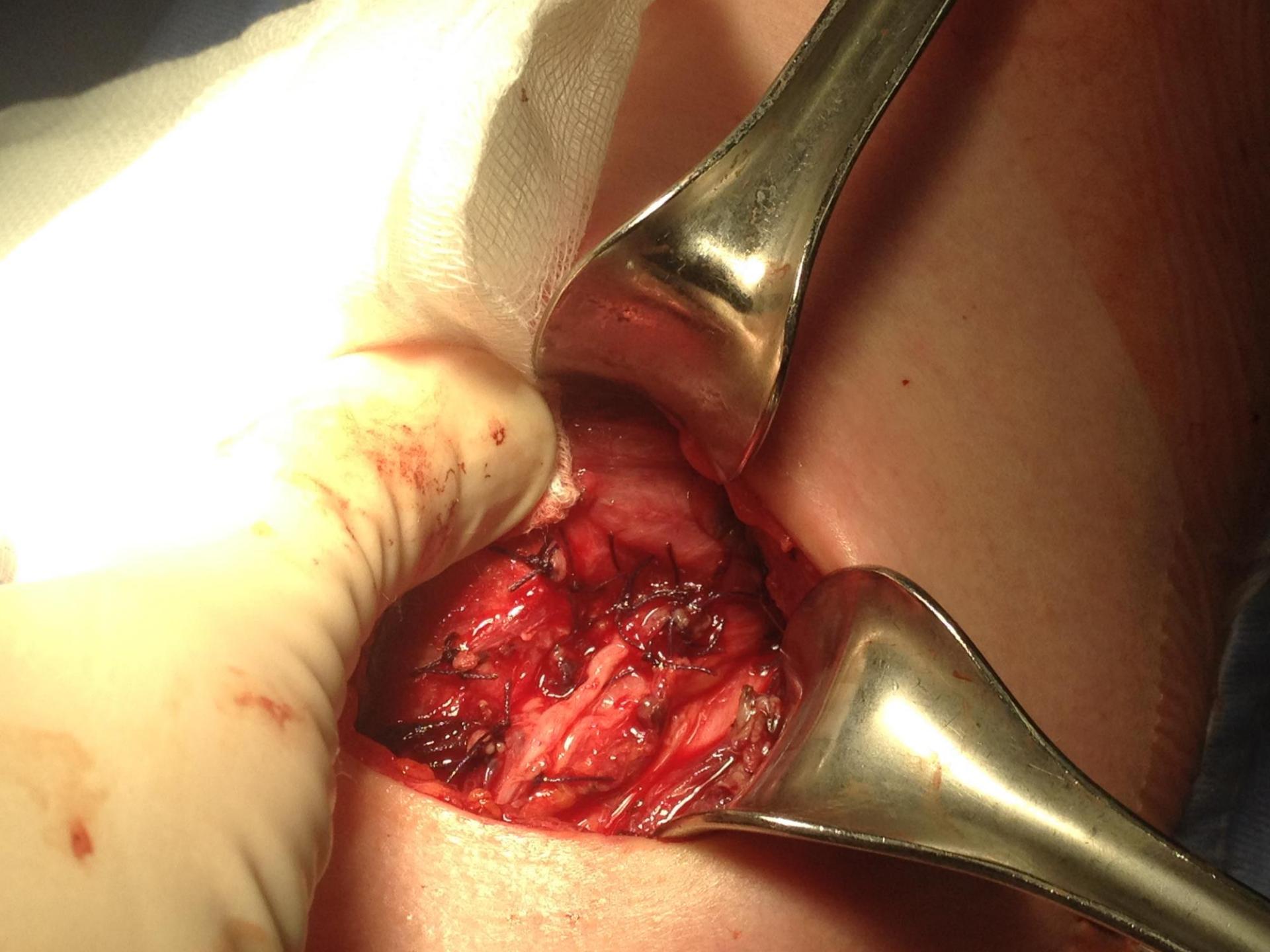


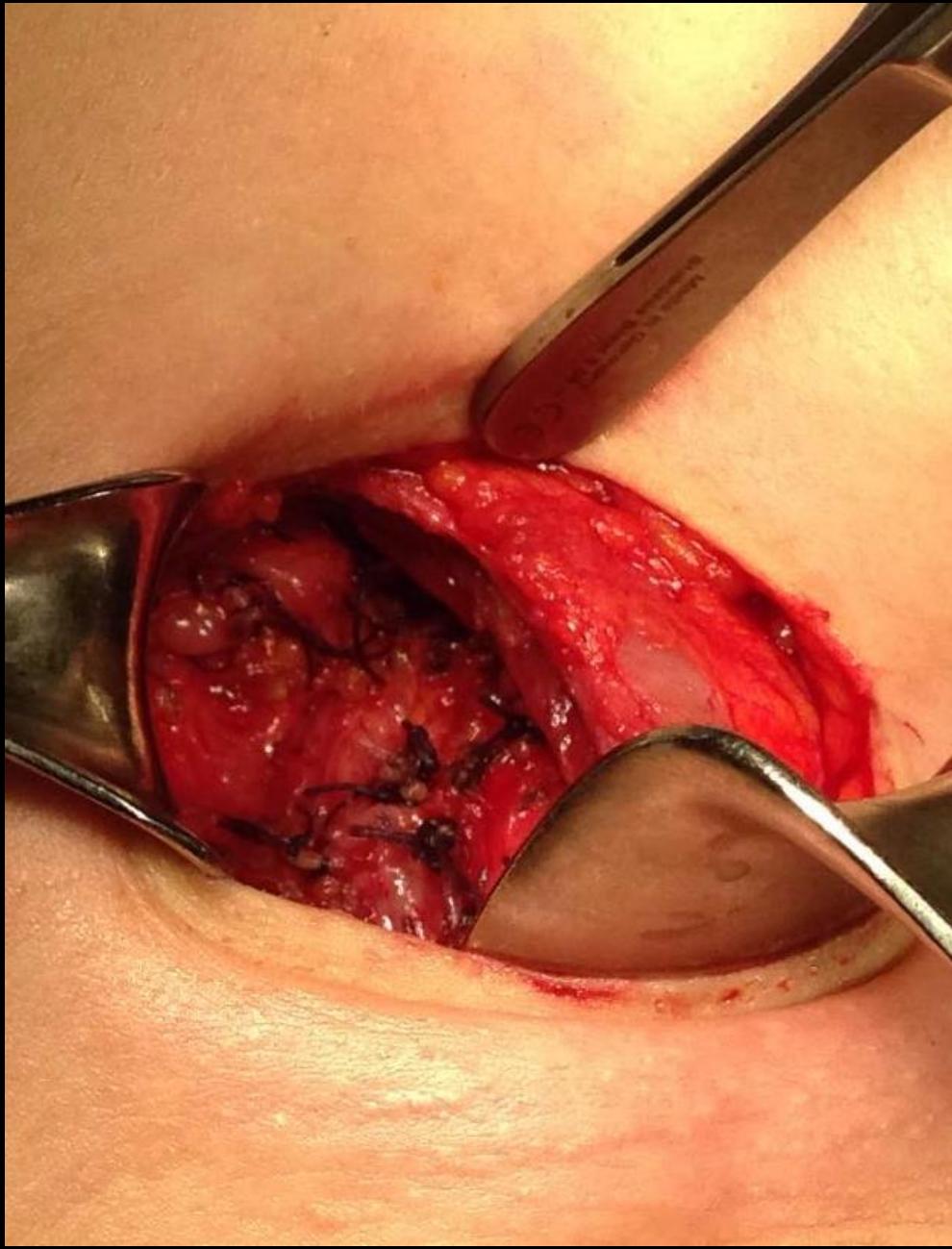
Lobo dx

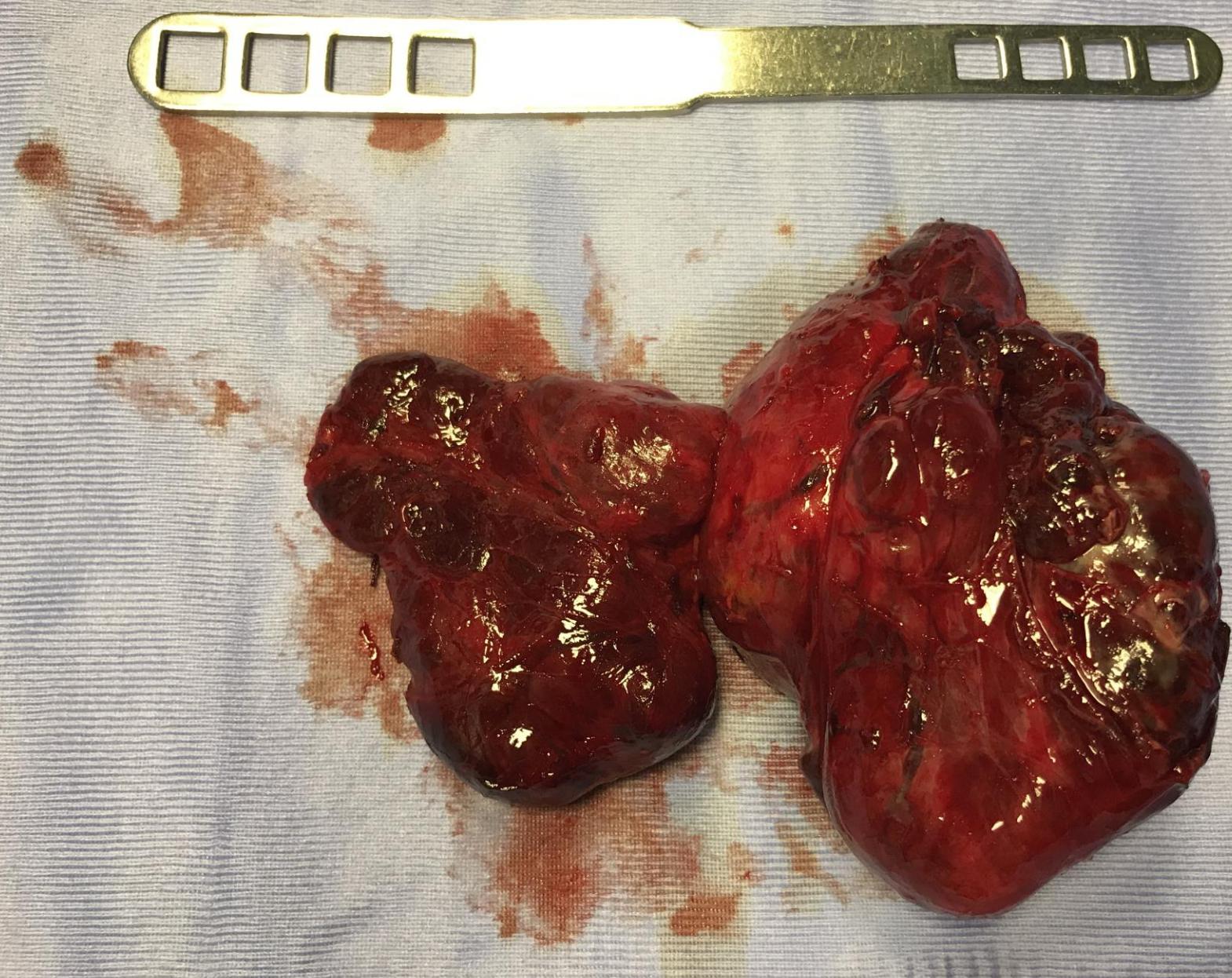
Trachea

Nervo
*













- complicanze
 - emorragie perioperatorie
 - intraoperatorie
 - postoperatorie (24 – 48 ore)
 - shock emorragico
 - dispnea da ematoma compressivo
 - paralisi ricorrenziale mono o bilaterale

- complicanze
 - paralisi ricorrenziale
 - monolaterale (in abduzione)
 - disfonia al risveglio
 - disfagia
 - bilaterale (in adduzione)
 - grave dispnea ostruttiva che prevede tracheotomia al risveglio
 - ipoparatiroidismo
 - transitorio
 - definitivo

- complicanze
 - lesioni laringo-tracheali e faringoesofagee
 - riparazione con sutura diretta
 - allestimento di lembi
 - inestetismi cutanei da cicatrizzazione anomala
 - deiscenze
 - cheloidi

- casistica operatoria (2011 – 2016)

tipo di intervento	numero
tiroidectomie parziali/totali per patologia benigna*	280
tiroidectomie per patologia maligna	194
termoablazioni per patologia tiroidea benigna	459
termoablazioni per patologia tiroidea maligna	1

* trattamenti chirurgici effettuati prevalentemente per patologia sospetta (TIR3) alla citologia, risultata di tipo benigno alla definizione istologica sul pezzo operatorio

• complicanze

tipo di intervento	paralisi ricorrenziale monolaterale	paralisi ricorrenziale bilaterale	ipoPTH
tiroidectomie parziali/totali per patologia benigna	<ul style="list-style-type: none"> transitorie 3,4% definitive 1,6% 	<ul style="list-style-type: none"> transitorie 0 definitive 0 	<ul style="list-style-type: none"> transitorio 3,5% definitivo 1,7%
tiroidectomie per patologia maligna	<ul style="list-style-type: none"> transitorie 9,5% definitive 2% 	<ul style="list-style-type: none"> transitorie 0,5% definitive 0,5% 	<ul style="list-style-type: none"> transitorie 5,2% definitive 5,2%
termoablazioni per patologia tiroidea benigna	<ul style="list-style-type: none"> transitorie 0,5% definitive 0 	<ul style="list-style-type: none"> transitorie 0 definitive 0 	<ul style="list-style-type: none"> transitorie 0 definitive 0
termoablazioni per patologia tiroidea maligna	<ul style="list-style-type: none"> transitorie 0 definitive 0 	<ul style="list-style-type: none"> transitorie 0 definitive 0 	<ul style="list-style-type: none"> transitorie 0 definitive 0

risultati

tipo di intervento	controllo della sintomatologia compressiva	controllo della sintomatologia estetica
tiroidectomie parziali/totali per patologia benigna	100%	?
termoablazioni per patologia tiroidea benigna	88%*	87%*

*Ultrasound-guided percutaneous laser ablation in treating symptomatic solid benign thyroid nodules: our experience in 45 patients.

Achille g. et al.
Head Neck. 2016

abbiamo fatto la cosa giusta?

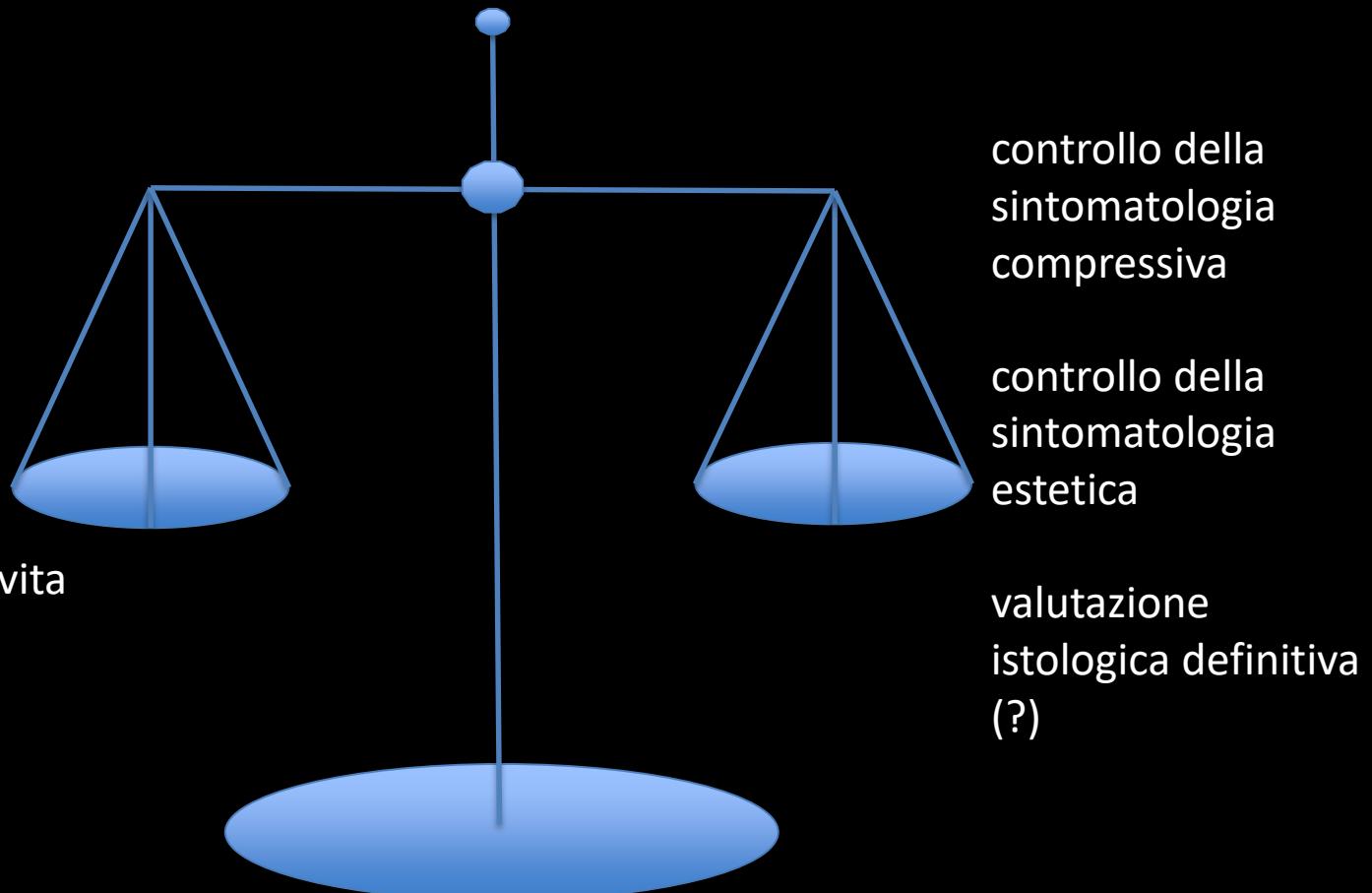
anestesia generale

degenza

complicanze

cicatrice cutanea

terapia sostitutiva a vita



indicazioni + consenso informato

TREATMENT TAILORING