2024 Thyroid Ablation Master Class
Program agenda

Date: 2024/11/24 (Sunday) 09:00 ~17:00

Location: Chang Gung Memorial Hospital, Linkou, Taiwan

Organizer: The Endocrine Society of the Republic of China (Taiwan)

Co-organizer: Division of Endocrinology and Metabolism, Chang Gung Memorial Hospital, Linkou, Taiwan

Time	Topic	Speaker	Moderator
08:40-09:00	Registration Location: International Conference Hall, Research Building 1F		
09:00-09:10	Opening Remarks Feng-Hsuan Liu (President of ESROC) Endocrinology Chang Gung Memorial Hospital, Linkou		
09:10-09:40	The current criteria of thyroid tumor ablation	Wei-Yu Chou（周威宇） Endocrinology Chang Gung Memorial Hospital, Linkou	Szu-Tah Chen（陳思達） New Taipei City Tucheng Hospital, Taiwan
09:40-10:10	Basic anatomy and techniques for thyroid ablation	Kai-Lun Cheng（鄭凱倫） Radiology Chung Shan Medical University Hospital	Shyang-Rong Shih（施翔蓉） National Taiwan University Hospital
10:10-10:30	Coffee Break		
10:30-11:00	Introduction of microwave ablation and the Philippine Experience	Rainier Lutanco Head and Neck Surgery The Medical City	Wai-Kin Chan（陳維健） Chang Gung Memorial Hospital, Linkou
11:00-11:30	Tips for RFA of the benign thyroid nodule	So Lyung Jung Radiology Yeouido St. Mary's Hospital	Chen-Kai Chou（周振凱） Kaohsiung Chang Gung Memorial Hospital
11:30-12:00	Advantages of Thyroid RFA including Adjustable electrode	Min Kyoung Lee Radiology Yeouido St. Mary's Hospital	Shu-Yi Wang（王舒儀） Changhua Christian Hospital
12:00-12:50	-Lunch symposium- A Cost-Effectiveness Analysis of First-Line Combination Use of Linagliptin (TRAJENTA ®) and Metformin in Patients with Type 2 Diabetes Mellitus in	Chih-Yuan Wang（王治元） National Taiwan University Hospital	Feng-Hsuan Liu（劉鳳炫） Chang Gung Memorial Hospital, Linkou

	Taiwan		
Move to Surgical Training Academy and Research Center, Research Building 8F			
13:10-13:40	Complications of thyroid ablation	Yu-Hsuan Li（李宇璇） Taichung Veterans General Hospital	He-Jiun Jiang（姜和均） E-DA Hospital, E-DA Healthcare Group
13:40-14:00	Introduction of simulation model	Wai-Kin Chan（陳維健） (Secretary General of ESROC) Endocrinology Chang Gung Memorial Hospital, Linkou	
14:00-17:00	Hands-on training: Location: Surgical Training Academy and Research Center	Kai-Lun Cheng（鄭凱倫） Yan-Rong Li（李晏榮） He-Jiun Jiang（姜和均） Chia-Luen Huang（黃嘉崙） Yu-Ling Lu（呂毓苓） Wen-Chieh Chen（陳玟潔）	

Kai-Lun Cheng, MD, PhD

2012~ Attending Radiologist, Department of Medical Imaging, Chung Shan Medical University Hospital, Taichung, Taiwan

2023~ Assistant Professor, School of Medicine, Chung Shan Medical University, Taichung, Taiwan

EDUCATION

2000-2007 Department of Medicine, Chung Shan Medical University, Taichung, Taiwan

2022 PhD. National Chung Hsing University, Taichung, Taiwan

POST-GRADUATE TRAINING

2007-2010 Residency in Department of Medical Imaging, Chung Shan Medical University Hospital, Taichung, Taiwan

2010-2011 Chief Resident in Department of Medical Imaging, Chung Shan Medical University Hospital, Taichung, Taiwan

2015/01-2016/01 Visiting scholar, Asan Medical Center, Seoul, Korea

PROFESSIONAL SOCIETY

Member of Radiological Society of the Republic of China

Member of Neuroradiological Society of Taiwan

Member of Taiwan Academy of Tumor Ablation

International member, Korean Society of Ultrasound in Medicine

International member, Korean Society of Radiology

SPECIALTY

Diagnostic Neuroradiology.

Radiofrequency ablation for thyroid nodules (including benign nodules, papillary thyroid microcarcinoma and recurrent papillary thyroid cancer), parathyroid adenoma and head and neck tumors.

Percutaneous ethanol injection for thyroid cyst.

Basic Anatomy and Techniques for Thyroid Ablation

Thyroid ablation procedures require a thorough understanding of thyroid and perithyroidal anatomy. The thyroid gland is situated in the neck, surrounded by vital structures like the trachea, esophagus, and critical neurovascular components such as the recurrent laryngeal nerve, vagus nerve, and carotid artery. Proper imaging, especially ultrasonography, is essential for identifying these structures and avoiding complications during procedures. Two key techniques used in thyroid ablation are the trans-isthmic approach, where the electrode is inserted through the isthmus to minimize damage to surrounding structures, and the moving shot technique, which involves segmental ablation of the thyroid nodule to ensure comprehensive treatment and reduce thermal damage. Advanced techniques, like hydrodissection, are also employed to separate the thyroid from adjacent critical structures, enhancing safety and preventing complications. This presentation will further explore these topics and explain the techniques in detail.

2024Thyroid Ablation Master Class

演講者 CV 格式

Title	■ Dr. □ Prof.	Degree	■ M.D. □ Ph.D
中文姓名	周威宇	Email	weiyumd@gmail.com
First Name	WEIYU	Last Name	CHOU
單位	Chang Gung Memorial hospital		
部門	Endocrinology and metabolism	職務	Attending physician

學歷

年份	學校/系所	學位
2002/09-2010/06	長庚大學/中醫學系雙主修醫學系	學士

經歷

年份	機構/單位	職務
2018/07~迄今	林口長庚醫院/內分泌暨新陳代謝科	主治醫師
2019/07 – 2020/07	中華民國骨質疏鬆學會	副秘書長

研究領域

1	Minimal invasive intervention of thyroid nodules

論文 (5 important publications – latest sequence)

1	Li YR, Chou WY, Chan WK, Cheng KL, Sun JH, Liu FH, Chen ST, Liou MJ. Successful Applications of Food-Assisted and -Simulated Training Model of Thyroid Radiofrequency Ablation. Front Endocrinol (Lausanne). 2022 Mar 31;13:809835.
2	Chou WY, Li YR, Chan WK, Chen ST. Association of diabetic ketoacidosis, severe hypoglycemia and glycemic control among children and young adults with type 1 diabetes mellitus treated with premixed versus basal-bolus insulin therapy. Biomed J. 2018 Dec;41(6):348-355.
3	Chou WY, Li YR. Brown tumours of the spine presenting with acute urine incontinence. CMAJ. 2017 Sep 5;189(35):E1116.

The current criteria of thyroid tumor ablation

甲狀腺腫瘤消融的治療標準

Wei-Yu Chou

周威宇

Department endocrinology and metabolism　Chang Gung memorial hospital Linkou branch, Taoyuan City, Taiwan

林口長庚紀念醫院 內分泌暨新陳代謝科

Thyroid tumor ablation is a critical intervention in the management of thyroid disorders, and its criteria have evolved over time in response to advances in medical technology and a deeper understanding of thyroid pathology. This abstract provides an overview of the current criteria used for thyroid tumor ablation.

The criteria for thyroid tumor ablation are multifaceted and are influenced by factors such as tumor size, histology, location, patient age, and comorbidities. Recent developments in imaging modalities, particularly ultrasound and fine-needle aspiration cytology, have improved the precision of diagnosing thyroid tumors and assessing their characteristics. Additionally, the advent of minimally invasive techniques, such as percutaneous ethanol injection (PEI) and radiofrequency ablation (RFA), has expanded the options for ablative therapies.

In the context of benign thyroid nodules, the criteria for ablation have evolved to accommodate various techniques. High-Intensity Focused Ultrasound (HIFU), a non-invasive and precise method, is considered when nodules cause symptoms, cosmetic concerns, or are suboptimal candidates for surgery. Radiofrequency Ablation (RFA) is favored for solid and cystic nodules with similar indications, while Microwave Ablation (MWA) is gaining prominence for larger lesions. Ethanol Ablation remains a suitable choice for cystic nodules, offering a minimally invasive option.

In conclusion, the current criteria for thyroid tumor ablation reflect a patient-centered approach, leveraging technological advancements and tailored therapeutic strategies. A thorough assessment of each patient's condition and close collaboration among healthcare providers are crucial in determining the most suitable ablation approach for thyroid tumors. Further research and clinical trials are warranted to refine these criteria and enhance the efficacy of thyroid tumor ablation procedures.

Rainier Yu Lutanco

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02 Aguinaldo St., Ayala Heights Village, Pansol, Quezon City, NCR, 1108, Philippines

Objectives

Head and Neck, General and Cancer Surgeon with a passion for teaching.

Work experience

January 05 2015 - December 01 2020

East Avenue Medical Center, Department of Surgery

Visiting Consultant

- Increased overall proficiency in Head and Neck Surgery among resident trainees
- Averages 20-30 1st assist among resident trainee staffin complicated Head and Neck surgical cases

February 02 2015 -

Chinese General Hospital and Medical Center (CGHMC)

Head, Section of Thyroid and Endocrine Surgery, Department of Surgery

- Increased overall proficiency in Head and Neck surgery among resident trainees.
- Averages 25-30 1st assists with resident trainees in complicated Head and Neck cases

October 03 2016 -

Ospital ng Makati (OsMak), Department of Surgery

Medical Specialist 1 (Full-Time)

- Active Member of Training Committee 2019 - Present
- Helped increase overall proficiency in Head and Neck Surgery among resident trainees through intraoperative supervision and whiteboard lectures and discussions
- Performed the 1st Transoral Endoscopic Thyroidectomy in OsMak
- Averages 40-50 1st assists per year as training of the Resident staff

January 02 2017 -

The Medical City (TMC)

Section Head, Section of Head and Neck Surgery, Department of Surgery

- Active Member of Training Committee 2019 - Present
- Helped increase overall proficiency in Head and Neck Surgery among resident trainees
- Performed the 1st Transoral Thyroidectomy in The Medical City
- Averages 25-40 1st assist with resident trainees in Head and Neck Surgery cases
- Started the Fellowship Training Program in Head and Neck Surgery in 2024

January 01 2018 - March 01 2024

Rizal Medical Center (RMC), Department of Surgery

Section Chief, Section of Head and Neck Surgery, Department of Surgery

- Helped increase overall proficiency in Head and Neck Surgery among resident trainees through intraoperative supervision and whiteboard lectures and discussions.
- Performed the first Transoral Endoscopic Thyroidectomy in RMC.
- Performed the first Pharyngolaryngoesophagectomy in RMC.
- Averages 20-30 1st assists a year with the residents and fellow trainees.

June 01 2022 -

Chinese General Hospital and Medical Center

Assistant Head, HMO Concierge

Formulate and implement policy, processes and protocols to increase overall HMO patronage in CGHMC

November 01 2023 -

Chinese General Hospital and Medical Center

Deputy Director for Clinical Services, Quality Management Team

May 31 2024 -

CCMA

Head Faculty and Lead Organizer, China Conference Microwave Ablation, Philippines

Started the first International Thyroid Ablation Training Center in the Philippines

Education

June 19 1995 - March 31 1999

Xavier School

High School

- Honorable Mention

June 14 1999 - April 04 2003
University of the Philippines - Manila

College

- BS Biology - Cum Laude

January 01 2009 - December 31 2013
University of the Philippines - Philippine General Hospital

Residency

- Department of Surgery
- General Surgery

June 15 2009 - April 04 2008
University of the Philippines - Manila, College of Medicine

Medicine

- Doctor of Medicine

January 01 2014 - December 31 2014
University of the Philippines - Philippine General Hospital

Fellowship

- Department of Surgery
- Head and Neck Surgical Oncology

July 06 2015 - December 04 2015
Azienda Ospedaliero Universitaria Pisana, Pisa, Italy

Sub-Specialization

- Minimally Invasive Thyroid and Parathyroid Surgery

September 10 2018 - July 25 2021
Ateneo Graduate School of Business

Masterals

- Masters in Business Administration in Health

Languages

Chinese (Mandarin)
Chinese (Fookien)
English
Filipino (Tagalog)

Skills

- Thyroid and Parathyroid Surgery
- Minimally invasive thyroid and parathyroid surgery
- Scarless Thyroidectomy
- Maxilla, Mandible, Submandibular and Parotid Gland, Neck Dissections, Pharynx and Laryngeal Surgery
- General Surgery
- Laparoscopic and Cancer surgery

Societies and Positions

Secretary, Philippine Academy for Head and Neck Surgery, Inc.
Secretary, Head and Neck Surgery Board of the Philippines
Examiner, Philippine Board of Surgery

Fellow, Philippine College of Surgeons
Fellow, Philippine Society of General Surgeons
Fellow, Surgical Oncology Society of the Philippines
Fellow, Philippine Academy for Head and Neck Surgery

So Lyung Jung

Catholic University of Korea

See Latest Publications | See Most Cited Publications

SciProfiles | ORCID Profile | Google Scholar

Current Organizations / Institutes

The organizations/institutes from the scholar's latest article

Catholic University of Korea

Yeouido St. Mary's Hospital

Previous Organizations / Institutes

The organizations / institutes from the scholar's other articles in the past ten years

Catholic University of Korea

Seoul St. Mary's Hospital

Yeouido St. Mary's Hospital

Research Subjects

Endocrinology and Metabolism

Neuroimaging

Radiology, Nuclear Medicine and Imaging

Research Interests

radiofrequency ablation

ultrasonography

thyroid nodules

lymph nodes

Co-Authors | Top-cited by | Top-citing

So Lyung Jung has a total of 204 co-authors. Here are the top co-authors by number of shared publications:

Bum-Soo Kim

Department of Radiology, College of Medicine, Seoul St. Mary's Hospital, The Catholic University of Korea, Seoul, Republic of Korea

23 shared publications

Kook-Jin Ahn

Department of Radiology, College of Medicine, The Catholic University of Korea, Seoul, Korea

20 shared publications

Hyun Seok Choi

Department of Radiology and Research Institute of Radiological Science and Center for Clinical Imaging Data Science, Yonsei University College of Medicine, Seoul, Republic of Korea

16 shared publications

Jinhee Jang

Department of Radiology, College of Medicine, Seoul St. Mary's Hospital, The Catholic University of Korea, Seoul, Republic of Korea

14 shared publications

Chan Kwon Jung

Department of Hospital Pathology, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea

8 shared publications

Ji-Hoon Kim

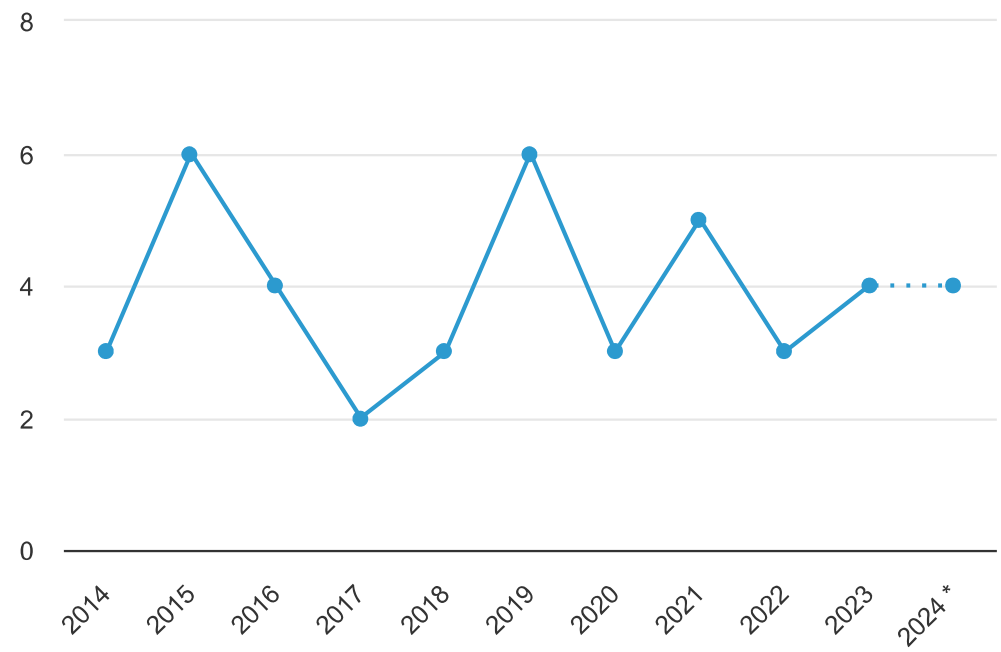
Department of Radiology, Seoul National University Hospital, Seoul National University College of Medicine, Seoul, Republic of Korea

7 shared publications

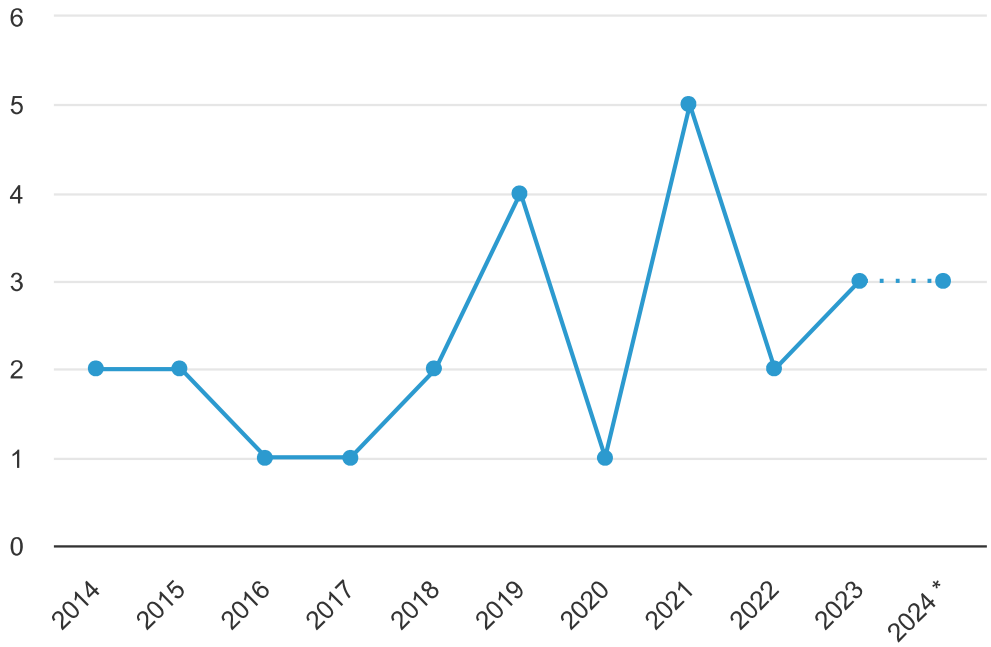
Publications Analysis

From 2014 To 2024

Publications in 2014-2024



Open Access Publications in 2014-2024



Publication Types

All-time publication data.

Type	Publications	%
JOURNAL-ARTICLE	59	98.3%
BOOK-CHAPTER	1	1.7%

Top Subjects

All-time publication data.

Subject	Publications
Endocrinology & Metabolism	33
Cardiology	22
Lung Cancer	17
Vascular Disorders	17
Brain Imaging	10
Oncology	9
Neuromuscular Disorders	7
Musculoskeletal & Nerve Cancer	6

Subject	Publications
Auto-Inflammatory Disorders	4
Breast Cancer	4

Top Source Titles

All-time publication data.

Source Title	Publications
Korean Journal of Radiology	8
Journal of the Korean Radiological Society	7
Ultrasonography	5
Journal of the Korean Society of Radiology	4
American Journal of Neuroradiology	3
Head & Neck	3
Journal of the Korean Society of Magnetic Resonance in Medicine	3
Thyroid®	3
Cancers	2
International Journal of Hyperthermia	2

Citation analysis

All-time citation data.

Total Citations	1,102
Total Publications	60
Average Citations	18.37
Cited Publications	43
Cited Publications %	71.7%
Self Citations	32
Self Citations %	2.9%

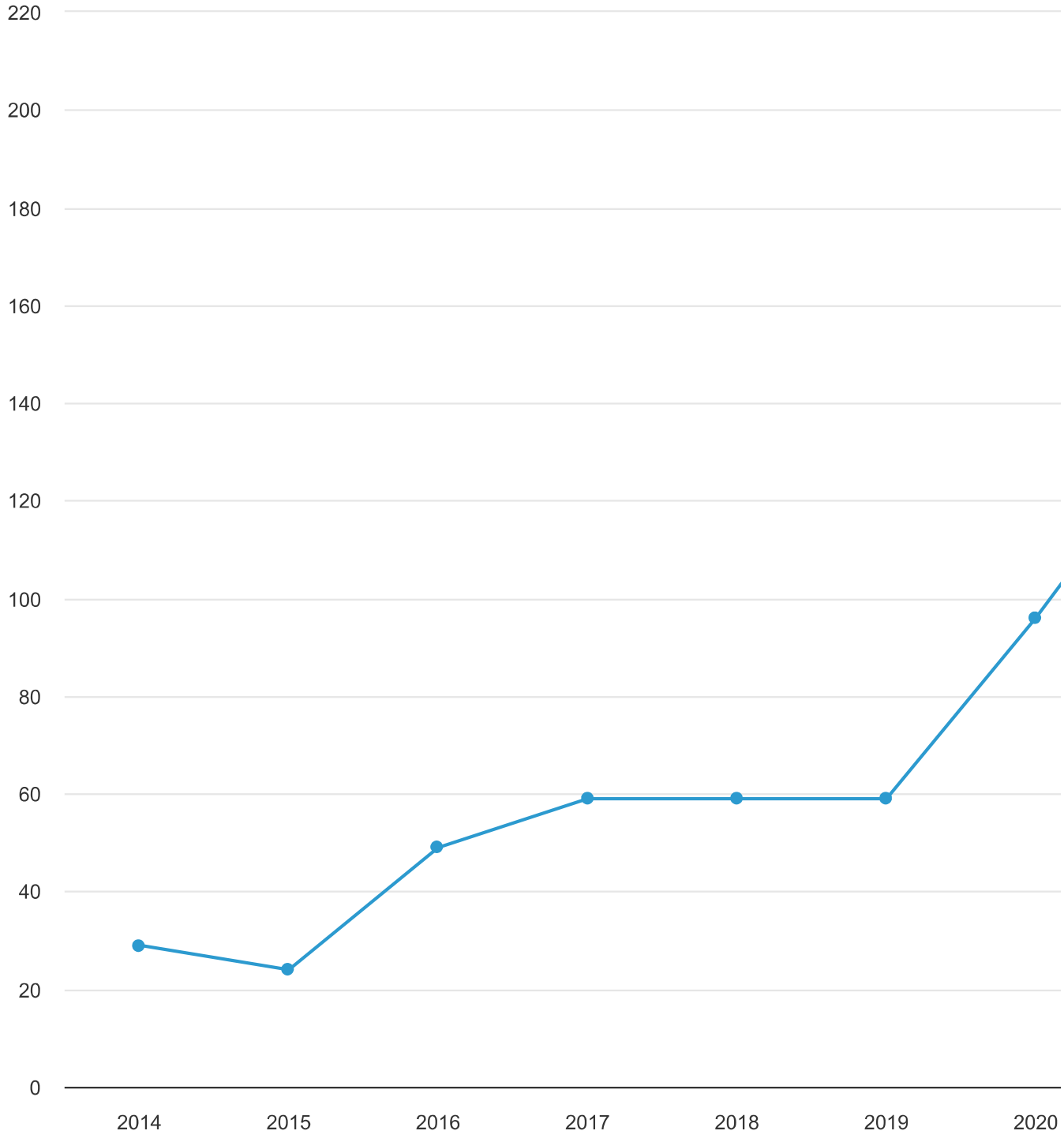
Scholar Metrics

h_index	21

i10_index	30

Citations per year

All citations in 2014-2024



Citation Distribution

All-time citation data.

Q1	0
Med	4

Q3	21.5
99%	131.5
Max	151

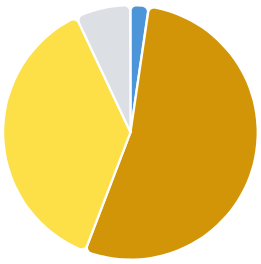
Citation Origins

All-time citation data.

Citing Source Titles	322
Citing Publishers	103

Collaboration Analysis

Publications in 2014-2024.



Collaboration type	Publications	Percentage
International collaboration	1	2.3%
Domestic inter-organizational collaboration	23	53.5%
Domestic intra-organizational collaboration	16	37.2%
Single authorship (no collaboration)	3	7.0%

Latest Publications

Sort by Newest

Website

Google Scholar

2 February 2024

Published by Wiley in Head & Neck

https://doi.org/10.1002/hed.27670

Malignancy risk of indeterminate lymph node at the central compartment in patients with thyroid cancer and concomitant sonographic thyroiditis

by Jung Hyo Rhim, Ji Ye Lee, Sun-Won Park, Younghen Lee, So Lyung Jung, Tae Jin Yun, Eun Ju Ha, Jung Hwan Baek, Jinna Kim, Dong Gyu Na, *et al.*

BackgroundTo evaluate the malignancy risk of sonographic (US) indeterminate lymph node (LN)s at the central compartment in thyroid cancer patients with US-thyroiditis (ST).MethodsAmong the central compartments of suspicious, indeterminate, and probably benign LN US categories, the malignancy rates were compared between ST and non-US-thyroiditis (non-ST) groups. Those of indeterminate category were compared with suspicious and probably benign categories.ResultsAt 531 central compartments from 349 patients, the malignancy rate was lower in ST group (34.4% [44/128]) than non-ST group (43.4...

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Open Access

Website

Google Scholar

1 January 2024

Published by XMLink in Journal of the Korean Society of Radiology

Vol. 85 (3), 618-630 https://doi.org/10.3348/jksr.2023.0056

The Comparison of Efficacy and Safety between Radiofrequency Ablation Alone and Ethanol Ablation Followed by Radiofrequency Ablation in the Treatment of Mixed Cystic and Solid Thyroid Nodule

by Min Gang Jo, Min Kyoung Lee, Jae Ho Shin, Min Guk Seo, So Lyung Jung

조민강, et al. J Korean Soc Radiol. 2024 Jan;85:e20. https://doi.org/10.3348/jksr.2023.0056

Open Access

Website

Google Scholar

1 January 2024

Published by XMLink in Journal of the Korean Society of Radiology

Vol. 85 (1), 184-196 https://doi.org/10.3348/jksr.2023.0065

Diagnostic Performance Using a Combination of MRI Findings for Evaluating Cognitive Decline

by Jin Young Byun, Min Kyoung Lee, So Lyung Jung

변진영, et al. J Korean Soc Radiol. 2024 Jan;85(1):184-196. https://doi.org/10.3348/jksr.2023.0065

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Website

Cited by 1

Google Scholar

1 January 2024

Published by XMLink in Korean Journal of Radiology

Vol. 25 (2), 199-209 https://doi.org/10.3348/kjr.2023.0577

Comparison of the Therapeutic Efficacy and Technical Outcomes between Conventional Fixed Electrodes and Adjustable Electrodes in the Radiofrequency Ablation of Benign Thyroid Nodules

by Jae Ho Shin, Minkook Seo, Min Kyoung Lee, So Lyung Jung

Shin JH, et al. Korean J Radiol. 2024 Feb;25(2):199-209. https://doi.org/10.3348/kjr.2023.0577

Open Access

Website

Google Scholar

31 May 2023

Published by Korean Society for Bone and Mineral Research in Journal of Bone Metabolism

Vol. 30 (2), 201-207 https://doi.org/10.11005/jbm.2023.30.2.201

A Rare Case of Hyperfunctioning Lipoadenoma Presenting as a Cystic Parathyroid Lesion

by Jinyoung Kim, Ohjoon Kwon, Tae-Jung Kim, So Lyung Jung, Eun Ji Han, Ki-Ho Song

A 58-year-old woman visited the hospital complaining of fatigue and indigestion lasting for more than 3 months. She had no medical history other than taking a calcium plus vitamin D supplement for osteopenia. The initial blood test showed a high calcium level of 14.0 mg/dL. Additional tests were performed to differentially diagnose hypercalcemia. The blood test results were as follows: serum parathyroid hormone (PTH)=247.0 pg/mL, PTH-related peptide <1.0 pg/mL, phosphorous=2.6 mg/dL, 25-hydroxy-vitamin D=14.5 pg/mL, creatinine=1.09 mg/dL, and 24 hr urine calcium=215 mg/dL. A 4.5 cm sized cystic lesion ...

See more

Website

Google Scholar

1 January 2023

Published by Springer Nature

p. 731-742 https://doi.org/10.1007/978-981-99-6782-7_84

Ultrasonography of the Thyroid Gland

by So Lyung Jung

Open Access

Website

Google Scholar

1 January 2023

Published by XMLink in Journal of the Korean Society of Radiology

Vol. 84 (5), 1009-1016 https://doi.org/10.3348/jksr.2023.0077

Training of Radiofrequency Ablation for Thyroid Nodules in Korea: Current and Future Perspective

by Hye Shin Ahn, So Lyung Jung, Jung Hwan Baek, Jin Yong Sung, Ji-Hoon Kim

고주파 절제술(radiofrequency ablation)은 미세 침습 치료술의 한 방법으로 양성 갑상선 결절과 갑상선 재발암 환자에서 수술적 치료를 대신하여 이용되고 있다. 국내에서는 2002년 세계 최초로 갑상선 결절에 대한 고주파 절제술을 시작하여, 2008년에는 대규모 연구 결과를 발표하였다. 2009년 대한갑상선영상의학회(Korean Society of Thyroid Radiology)는 고주파 절제술에 대한 첫 권고안을 만들었으며, 2012년과 2018년에 이를 개정하였다. 대한갑상선영상의학회의 지침서는 갑상선 결절의 고주파 절제술에 대한 세계 최초의 지침서로 국내 및 국외에서 갑상선 고주파 절제술을 시행하는 시술자들을 위한 지침이 되었다. 이 지침서들은 한국 및 전 세계 ...

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Google Scholar

1 January 2023

Published by The Korean Society of Radiology in Korean Journal of Radiology

Vol. 24 (1), 22-30 https://doi.org/10.3348/kjr.2022.0894

Standardized Imaging and Reporting for Thyroid Ultrasound: Korean Society of Thyroid Radiology Consensus Statement and Recommendation

by Min Kyoung Lee, Dong Gyu Na, Leehi Joo, Ji Ye Lee, Eun Ju Ha, Ji-Hoon Kim, So Lyung Jung, Jung Hwan Baek

Lee MK, et al. Korean J Radiol. 2023 Jan;24(1):22-30. https://doi.org/10.3348/kjr.2022.0894

Open Access

Website

Google Scholar

1 October 2022

Published by Korean Association of Internal Medicine in Korean Journal of Medicine
Vol. 97 (5), 292-302 https://doi.org/10.3904/kjm.2022.97.5.292

2021 Korean Thyroid Imaging Reporting and Data System (2021-K-TIRADS) and Imaging-Based Management of Thyroid Nodules: Korean Society of Thyroid Radiology Consensus Statement and Recommendations

by So Lyung Jung

The rate of detection of thyroid nodules and carcinomas has increased with the widespread use of ultrasonography (US), which is the primary imaging modality for the detection and risk stratification of thyroid nodules. The appropriate diagnosis and management of these patients is based on the risk factors related to the patients as well as the thyroid nodules. The Korean Society of Thyroid Radiology (KSThR) published consensus recommendations for US-based management of thyroid nodules in 2011 and revised them in 2016. These guidelines have been used as the standard guidelines in Korea. However, rece...

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Website

Cited by 3

Google Scholar

1 July 2022

Published by Korean Society of Ultrasound in Medicine in Ultrasonography
Vol. 41 (3), 434-443 https://doi.org/10.14366/usg.21221

Radiofrequency ablation of recurrent thyroid cancers: anatomy-based management

by Min Kyoung Lee, Jung Hwan Baek, Sae Rom Chung, Young Jun Choi, Jeong Hyun Lee, So Lyung Jung

Although differentiated thyroid cancer has an excellent prognosis and low mortality, its recurrence rate has been reported to be very high. While surgery is recommended as the standard treatment for recurrent thyroid cancer, reoperation may increase the incidence of complications due to fibrosis and anatomical distortion. In patients with high surgical risk or those who refuse repeated surgery, ultrasonography-guided ablation techniques including radiofrequency ablation, ethanol ablation, and laser ablation are suggested as alternative treatments. In this manuscript, we introduce an anatomy-based management concept f...

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Min Kyoung Lee

Assistant Professor
Department of Radiology
College of Medicine
Department of Radiation_ yeouido
Yeouido St. Mary's Hospital

Contact Expert

View Scopus Profile

Email
tosky333mk@gmail.com

h-index

584 Citations | 15 h-index

2014 2024

Research activity per year

Overview Fingerprint Network Research output (39) Similar Profiles (12)

Personal profile

Expertise related to UN Sustainable Development Goals

In 2015, UN member states agreed to 17 global Sustainable Development Goals (SDGs) to end poverty, protect the planet and ensure prosperity for all. This person's work contributes towards the following

SDG(s):

Fingerprint

Dive into the research topics where Min Kyoung Lee is active. These topic labels come from the works of this person. Together they form a unique fingerprint.

- Magnetic Resonance Imaging — Medicine and Dentistry
- Meta-Analysis — Medicine and Dentistry
- Thyroid Nodule — Medicine and Dentistry
- Thyroid Gland — Medicine and Dentistry
- Radiofrequency Ablation — Medicine and Dentistry
- Diagnostic Performance — Medicine and Dentistry
- Uterine Fibroid — Medicine and Dentistry
- Patient — Medicine and Dentistry

View full fingerprint ›

Research output

Research output per year

2014 · · · 2024

Automated Scoring of Alzheimer's Disease Atrophy Scale with Subtype Classification Using Deep Learning-Based T1-Weighted Magnetic Resonance Image Segmentation

Choe, Y. S., Kim, R. E. Y., Kim, H. W., Kim, J. Y., Lee, H., Lee, M. K., Lee, M., Kim, K. Y., Kim, S. H., Kim, J. H., Lee, J. Y., Kim, E., Kim, D. & Lim, H. K., 17 May 2024, In: Journal of Alzheimer's Disease Reports. 8, 1, p. 863-876 14 p.
Research output: Contribution to journal › Article › peer-review

Open Access

Image Segmentation | Alzheimer's Disease | Magnetic Resonance Imaging | Deep Learning Method | Mild Cognitive Impairment

Cerebrovascular Malformation Mimicking Recurrent Lymphoma on Dual Time-Point ^{18}F-FDOPA PET

Park, S. Y., Lee, M. K., Han, E. J. & Jeon, Y. W., 1 Mar 2024, In: Clinical Nuclear Medicine. 49, 3, p. 232-233 2 p.
Research output: Contribution to journal › Article › peer-review

Fluorodeoxyglucose F 18 | Fluorine-18 | Fluorine 18 | Cerebrovascular Malformation | Polyethylene Terephthalate

Comparison of the Therapeutic Efficacy and Technical Outcomes between Conventional Fixed Electrodes and Adjustable Electrodes in the Radiofrequency Ablation of Benign Thyroid Nodules

Shin, J. H., Seo, M., Lee, M. K. & Jung, S. L., Feb 2024, In: Korean Journal of Radiology. 25, 2, p. 199-209 11 p.
Research output: Contribution to journal › Article › peer-review

Open Access

Combination Therapy | Thyroid Nodule | Radiofrequency Ablation

The Comparison of Efficacy and Safety between Radiofrequency Ablation Alone and Ethanol Ablation Followed by Radiofrequency Ablation in the Treatment of Mixed Cystic and Solid Thyroid Nodule

Jo, M. G., Lee, M. K., Shin, J. H., Seo, M. G. & Jung, S. L., May 2024, In: Journal of the Korean Society of Radiology. 85, 3, p. 618-630 13 p.
Research output: Contribution to journal › Article › peer-review

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Thyroid Nodule | Cosmetics | Adverse Event

A Fully Automated Visual Grading System for White Matter Hyperintensities of T2-Fluid Attenuated Inversion Recovery Magnetic Resonance Imaging

Rieu, Z. H., Kim, R. E. Y., Lee, M., Kim, H. W., Kim, D., Yong, J. H., Kim, J. M., Lee, M. K., Lim, H. & Kim, J. Y., May 2023, In: Journal of Integrative Neuroscience. 22, 3, 57.
Research output: Contribution to journal › Article › peer-review

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Magnetic Resonance Imaging | Brain Disease

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2024Thyroid Ablation Master Class

演講者 CV 格式

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研究領域

1	甲狀腺
2	糖尿病
3	

論文 (5 important publications – latest sequence)

1	**Li YH**, Wu MH, Lee WJ, Lee IT. A Synergistic Effect between Plasma Dickkopf-1 and Obstructive Coronary Artery Disease on the Prediction of Major Adverse Cardiac Events in Patients with Angina: An Observational Study. Biomolecules. 2022 Oct 2;12(10):1408. doi: 10.3390/biom12101408
2	**Li YH**, Lee IT, Chen YW, Lin YK, Liu YH, Lai FP. Using Text Content From Coronary Catheterization Reports to Predict 5-Year Mortality Among Patients Undergoing Coronary Angiography: A Deep Learning Approach. Front Cardiovasc Med. 2022 Feb 28; 9:800864. doi: 10.3389/fcvm.2022.800864. PMID: 35295250; PMCID: PMC8918537.
3	**Li YH**, Sheu WH, Yeh WC, Chang YC, Lee IT. Predicting Long-Term Mortality in Patients with Angina across the Spectrum of Dysglycemia: A Machine Learning Approach. Diagnostics (Basel). 2021 Jun 9;11(6):1060. doi: 10.3390/diagnostics11061060. PMID: 34207578; PMCID: PMC8226455.
4	**Li, Y. H.,** Sheu, W. H., Chou, C. C., Lin, C. H., Cheng, Y. S., Wang, C. Y., Wu, C. L., & Lee, I. T. (2021). The Clinical Influence after Implementation of Convolutional Neural Network-Based Software for Diabetic Retinopathy Detection in the Primary Care Setting. *Life (Basel, Switzerland)*, *11*(3), 200. https://doi.org/10.3390/life11030200
5	**Li, Y. H.,** & Lee, I. T. (2020). Hyperthyroidism and vascular cell adhesion molecule-1 are associated with a low ankle-brachial index. *Scientific reports*, *10*(1), 17076. https://doi.org/10.1038/s41598-020-74267-7

Complication of thyroid ablation

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Thyroid nodule ablation is increasingly recognized as a minimally invasive alternative to traditional thyroid surgery for managing benign and small malignant thyroid nodules. Techniques such as radiofrequency ablation (RFA) and microwave ablation have demonstrated efficacy in reducing nodule size and alleviating symptoms while minimizing the need for open surgery. However, as with any medical intervention, thyroid ablation is associated with potential complications, which range from minor to severe. This speech aims to provide a comprehensive overview of these complications, their management, and strategies to mitigate risk.

One of the most commonly encountered complications is pain and discomfort at the ablation site. This is generally mild and transient, but patient education and effective use of local anesthesia are essential to ensure a comfortable experience. In rare cases, more intense pain may indicate deeper tissue damage, necessitating immediate evaluation.

Another frequent but typically minor complication is skin burns. These can result from the direct effect of the heat generated by the ablation probe. Proper positioning and real-time ultrasound monitoring are crucial to minimize this risk. Additionally, the use of percutaneous hydro-dissection, which involves the injection of saline or dextrose between the thyroid capsule and critical structures such as the esophagus, trachea, or recurrent laryngeal nerve, is an effective method to reduce the incidence of thermal injury.

Vocal cord paralysis, due to injury to the recurrent laryngeal nerve, represents one of the most concerning complications associated with thyroid ablation. This complication, though rare, can result in voice changes, dysphonia, and even airway compromise. Pre-procedural ultrasound mapping of the recurrent laryngeal nerve and meticulous intra-procedural monitoring are critical to prevent such outcomes. If nerve injury does occur, corticosteroid therapy and voice rehabilitation exercises can aid in recovery, but permanent damage is possible in severe cases.

Hematoma formation is another potential complication, particularly when large vessels are inadvertently damaged during the procedure. Small hematomas are generally self-limiting and resolve with conservative management, while larger ones may necessitate surgical intervention to control bleeding and decompress the affected area. Meticulous needle placement and monitoring are essential to reduce this risk.

The thermal effect of ablation may also extend to surrounding structures, leading to tracheal injury or esophageal damage. These complications are rare but can result in significant morbidity if not promptly recognized and managed. Symptoms such as difficulty swallowing, voice changes, or respiratory distress should be immediately evaluated with imaging studies. In cases of suspected esophageal injury, early intervention with endoscopy and placement of protective measures such as stents may be necessary.

Another complication that warrants attention is the formation of a nodule recurrence or regrowth. Incomplete ablation or insufficient treatment may lead to the regrowth of the treated nodule, necessitating repeat procedures. Careful selection of ablation candidates, precise targeting, and sufficient energy delivery are essential to achieve durable results.

In conclusion, while thyroid nodule ablation offers a less invasive alternative with a favorable safety profile compared to traditional thyroidectomy, it is not without risks. A thorough understanding of potential complications, their early recognition, and prompt management are essential to optimizing patient outcomes. Emphasis on patient selection, operator experience, and adherence to meticulous procedural techniques can significantly mitigate these risks, making thyroid ablation a safe and effective option for patients with thyroid nodules. This speech will delve into these complications, providing insights into their mechanisms, management strategies, and preventive measures, underscoring the importance of continued education and skill development for practitioners performing these procedures.