Pioneering
Non-Invasive
Surgery



MEET THE EXPERT Dr. Brian Lang

Dr. Brian Lang, M.D., Clinical Associate Professor, Department of Surgery, Chief of the Endocrine Surgery Division

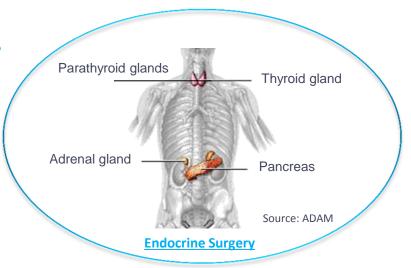
Queen Mary Hospital, University of Hong Kong, China

"Patients want to keep their thyroid. They want to keep the function."



Dr. Lang, can you please describe your institution?

Queen Mary Hospital is a university-teaching hospital and I am currently heading the endocrine surgery unit. Our division is dedicated to the clinical service and research of endocrine surgical diseases in collaboration with endocrinologists, radiation oncologists, radiologists and endocrine pathologists.



What differentiates you from other centers?

We are the only full-time endocrine surgical unit in Hong-Kong that provides surgical services in diseases involving the thyroid, parathyroid, adrenal glands and neuroendocrine tumors. We provide integrated services from diagnosis to treatment and follow-up.



Could you tell us the reasons why you chose to acquire the Echopulse®?

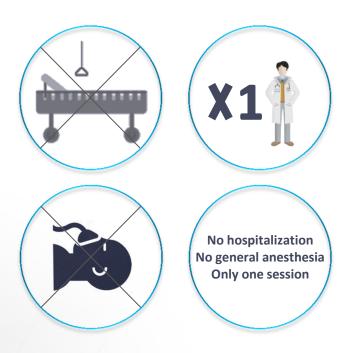
I have always been looking for something that is less invasive than surgery in the treatment of benign thyroid nodules. The advantages of Echopulse over other thermal ablative techniques (i.e., laser or radiofrequency) are that is requires no skin incision and there is no need for any needle insertion into the nodule.

In your opinion, how patients can benefit from an Echopulse® treatment?

Echopulse has the potential of inducing tissue necrosis and nodule shrinkage and that may translate into an improvement in nodule-related complaints like pressure symptoms and cosmetic concerns.

Did the introduction of echotherapy bring a new patient population to your center?

Of course, there are patients who probably would not have come to Queen Mary Hospital if we did not offer this type of thermal treatment. **Today, they come because they want to have this treatment specifically.**



Without HIFU treatment, how would you have treated these patients? Also what were the reasons your patients chose HIFU treatment?

Most of my patients who chose HIFU would traditionally have been offered surgery but they didn't want surgery. As for why some patients preferred HIFU over surgery; first **patients would like to maintain their normal thyroid function** and second, some did not want to have a general anesthesia. At the moment, in Hong-Kong, even radiofrequency ablation is not very popular. HIFU ablation is a good alternative because it offers a treatment without cuts and scars that preserves thyroid tissue around the nodule and maintains the thyroid function.



After HIFU treatment to both sides of the neck

What feedback do you get from your patients on echotherapy?

The feedback has been positive. When we do a follow-up 6 months after the treatment we observe a 50% volume reduction on average and for most, there was an improvement in nodule-related symptoms.

"Patients want to keep their thyroid. They want to keep the function."

How did the patients who seek echotherapy at your center learn about this new technique?

A few months ago, with the help of Theraclion, we organized a press conference, bringing together half a dozen journalists. This is a new topic, a new therapeutic alternative, and media are fond of innovations. Thanks to various newspaper and online articles, patients have been informed about the existence of this treatment. When the articles were published, we witnessed a large number of referrals inquiring about the treatment. We plan to organize similar events in the future.

"Some patients had operation. They have one lobe left and they don't want to take medication. So they want to get this treatment."

Can you say a word about your relationship with Theraclion?

We have had a purely professional relationship with the company. The company has been great in providing all the technological and educational support. The machine we bought has been working great so far. We have the system to treat benign thyroid nodules but we hope we can develop further indications. I think HIFU is an exciting area and there are many areas for research.



Could you please describe your experience so far with the Echopulse system?

My experience has been very positive. Initially I wasn't too sure how much shrinkage I would get with the nodules. Now, we have gathered enough data and I am quite confident with the technology and clinical outcomes. Thyroid nodules have reduced in size by more than 50% by 6 months. With more experience, I am pretty sure that we could keep on improving results and apply echotherapy for most nodules. There is definitely a learning curve but the more you do, the more you learn and improve the efficiency of the treatment.



Before echotherapy



1 week after
HIFU treatment



3 months after HIFU treatment



6 months after HIFU treatment

About the same size

About 60% reduction relative to baseline

About 70% reduction from baseline

What could be potential new application areas for HIFU treatment of the thyroid gland?

I firmly believe that HIFU treatment might have a role to play in Graves' disease and low-risk well differentiated thyroid cancers. We have started a clinical trial on Graves' disease and are awaiting results.

Echopulse® is a class IIb medical device (according to Directive 93/42/EEC) designed and marketed by Theraclion Echopulse® has received CE-mark for non-invasive treatment of breast fibroadenomas and thyroid nodules – CE n° 0120 Not covered by statutory health insurance schemes in Europe (with the exception of Germany where it is covered by several insurance companies)

(with the exception of Germany where it is covered by several insurance companies) Before use, read the instruction for use carefully

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