A scar-free alternative to conventional thyroid surgery

Some patients can have thyroid nodules, cancers removed through the mouth to avoid visible scar on the neck



Amrita Kaur

Thyroid surgery typically leaves a visible scar across the front of the neck.

But a surgical technique that involves removing part or all of the thyroid gland through an incision inside the mouth offers an alternative for suitable patients, without leaving visible scars on the skin.

Known as transoral thyroidectomy, the procedure may be an option for patients with certain thyroid nodules and small thyroid cancers.

Oh Han Boon, head of the division and senior consultant of breast and endocrine surgery at Ng Teng Fong General Hospital (NTFGH), says: "It was developed to offer patients a scarless alternative to conventional thyroid surgery, which typically leaves a horizontal scar measuring 5cm to 6cm across the front of the neck."

NTFGH performed its first transoral thyroidectomy in 2022, but began doing the procedure more regularly from 2024. The hospital has since carried out more than 20 such procedures.

Singapore General Hospital (SGH) has also been offering the procedure to selected patients since late 2015.

"Due to a general increase in health screening in our population, thyroid nodules are more commonly picked up in recent years, and transoral thyroidectomy has proven to be a suitable procedure for some of these patients," says Anna See, a senior consultant at SGH's department of otorhinolaryngology – head and neck surgery.

About 50 patients have undergone the procedure at SGH.



Shazwani Sazali (left) and Anu Mary Abraham (right), who underwent transoral hemithyroidectomy for their thyroid condition, chose the procedure as it does not leave visible scars on the skin. With them is their doctor Oh Han Boon, head of the division and senior consultant of breast and endocrine surgery at Ng Teng Fong General Hospital. ST PHOTO: NG SOR LUAN

A SCARLESS ALTERNATIVE, BUT IT IS NOT FOR EVERYONE

Joel Lau, a consultant at SGH's department of head and neck surgery, says the procedure may be considered for patients with benign thyroid nodules or small, low-risk thyroid cancers that are confined to the thyroid, with no evidence of spread to nearby lymph nodes.

However, the suitability varies from patient to patient.

Patients with benign nodules – those that cause symptoms such as neck swelling, difficulty swallowing or speaking, or breathing difficulties – are suitable, says Oh.

Patients who have undergone previous neck surgery or head and neck radiation, or who have large goitres (enlarged thyroid glands) or advanced cancers, are among those who would not be advised to undergo the procedure.

For patients Anu Mary Abraham and Shazwani Sazali, the prospect of undergoing thyroid surgery without a visible scar on the neck was a key factor in their decision to opt for the procedure over conventional thyroid surgery.

Abraham, 36, had lived with thyroid nodules since she was 13, when a general practitioner first noticed a slight protrusion on her neck during a routine check-up.

A biopsy found the nodule to be benign, and she was advised to monitor it regularly.

Over the years, more nodules developed, but repeated biopsies showed no cause for concern.

By her 20s, she had begun experiencing some difficulty swallowing large mouthfuls of food. However, her symptoms became more pronounced when she was 34, when she started getting breathless more easily when climbing stairs or playing badminton.

"Activities I once enjoyed, such as running around and trekking with my two children, became dreadful. I felt both emotionally and physically drained," says Abraham, whose children are aged 11 and five.

Abraham, who was working in customer service at that time, also found herself with less energy after work and occasionally experienced a hoarse voice after speaking for prolonged periods.

Concerned by the changes, she sought a referral to NTFGH, where she consulted Oh.

He explained that she could undergo a hemithyroidectomy, which is surgery to remove one half (one lobe) of the thyroid gland. He discussed the transoral approach as an option, given the size of her nodules.

Abraham had been hesitant about surgery after seeing other patients with visible neck scars. The prospect of avoiding one made her more receptive to the procedure.

She underwent a transoral right hemithyroidectomy in March 2024, in which her entire right thyroid lobe was removed. She found the pain minimal and manageable, and was discharged after one night in hospital.

She initially consumed liquids such as clear soup and porridge, as swallowing was uncomfortable while the wound healed. After a week, she gradually resumed eating solid food.

Once the wound healed, she found that she could swallow larger mouthfuls of food comfortably again. Her breathlessness also subsided, her energy levels returned to normal and her voice was no longer hoarse.

"If I had not undergone this procedure, I would have had a conventional thyroidectomy, which would have left a scar. That would have affected my confidence. I might have ended up wearing scarves to cover the scar or even considered cosmetic surgery," says Abraham, who works as a fraud investigator in the information technology industry.

RISKS AND RECOVERY

Lau says many of the risks of transoral thyroidectomy are similar to those of conventional open thyroid surgery.

These include bleeding, voice changes if a nearby nerve is injured and low calcium levels if the small glands that regulate calcium are affected.

Risks specific to the transoral approach include numbness of the lower lip or chin due to irritation of a nearby nerve.

The procedure may cause some swelling and bruising over the neck, but these are usually temporary and resolve on their own in a few weeks, says Lau.

Recovery is similar to that following conventional thyroid surgery, with most patients admitted to hospital for one to two nights.

Patients can have a pureed diet on the evening of surgery and resume a normal soft diet on the first day after the operation, says Oh. They are advised to rest and recover at home, and can usually return to their normal activities after about two weeks.

For patients who are particularly concerned about visible neck scars, the cosmetic benefits of transoral thyroidectomy can be significant. This may be especially relevant for people prone to keloids or those in professions where appearance is important, such as modelling, notes See.

A GROWING NODULE, AND A WEDDING ON THE HORIZON

For Shazwani, the discovery of her thyroid nodule in 2023 was incidental.

The 29-year-old customer care executive at a yoga studio was seeing Oh for another condition when he noticed that her neck appeared swollen. He sent her for tests.

Her thyroid hormone levels were normal, but a follow-up scan about six months later showed that the nodule had grown by 2cm to 3cm.

A fine-needle aspiration found it to be benign, so Oh scheduled a follow-up ultrasound for a later date as she had no symptoms other than the swelling.

However, a month later, Shazwani returned to the clinic as she developed some symptoms.

Like Abraham, she experienced breathlessness when climbing stairs. As the nodule grew, she felt as though something was stuck in her throat when swallowing and noticed a protrusion in her neck.

The prospect of a visible scar was a particular concern for her.

In 2023, she had undergone surgery to remove lumps from both armpits, near the breast area. The resulting scars became hypertrophic, meaning they were raised and thickened.

Knowing that her thyroid surgery could be performed without a visible neck scar was reassuring, especially as she was preparing to get married in 2025. "I wouldn't want my scars to be the No. 1 topic among people," she says.

Given the increase in size of the nodule and symptoms, she was offered transoral left hemithyroidectomy.

Shazwani underwent the procedure in September 2024.

Her recovery was manageable, although she initially experienced bruising around her chin, neck and lip, as well as mild numbness in her chin.

She ate soft foods such as mushroom soup and mashed potato, and drank Milo. She took about three weeks to resume eating solid food and about two months to feel sufficiently recovered to return to her usual activities.

She was struck by the difference in the appearance of her neck after surgery.

"I compared photographs taken before and after the procedure and saw that my neck was so slim. It was like nothing I had seen before the surgery. The swelling had subsided significantly. I was more confident and lively," says Shazwani.

For both women, the procedure brought relief from concerns that had affected their everyday lives while allowing them to avoid a visible scar on the neck.

VISIBLE DIFFERENCE

I compared photographs taken before and after the procedure and saw that my neck was so slim. It was like nothing I had seen before the surgery. The swelling had subsided significantly. I was more confident and lively.

SHAZWANI SAZALI, a 29-year-old customer care executive who underwent the procedure in September 2024.

WHEN TO SEEK MEDICAL ADVICE

Oh advises patients who are concerned about thyroid nodules to first consult a thyroid specialist, such as an endocrine surgeon.

An assessment may include an ultrasound scan of the thyroid, blood tests to assess thyroid function and, where necessary, a fine-needle aspiration biopsy.

People should seek medical assessment if they experience voice changes, notice that a nodule is growing or have difficulty swallowing or breathing.

Unexplained weight gain or weight loss, which may be associated with an underactive or overactive thyroid, should also be investigated.

Says Oh: "Fortunately, most thyroid nodules are benign. Those that do not cause symptoms can often be monitored with ultrasound scans without the need for treatment or surgery."

amritak@sph.com.sg