

# Is advocacy for active surveillance over definitive intervention in papillary thyroid microcarcinoma applicable to European patients?

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In the last two decades there has been a significant increase in the number of small papillary thyroid carcinomas worldwide (1).

In addition to the question of the cause of this phenomenon, especially its therapeutic consequence is the focus of discussion (1).

Various studies, especially of the Japanese Kuma Hospital show that papillary microcarcinomas (PMC) do not always have to undergo primary surgery, but that patients can also be offered a primary observation strategy (2,3).

In a study, 2,153 patients with low-risk PMC, who were either primarily active surveillance [1,179] or primarily operated [974] between 2005 and 2013 at the Kuma Hospital in Japan, were analyzed (2).

The diagnosis of a PMC was made by FNA. A primary observational strategy was only offered to those patients who had primary tumors without high-risk criteria (metastases, extrathyroid tumor growth, de-differentiation or primary tumor near trachea or recurrent nerve). Patients who chose primary active surveillance were followed up at 6 months, then annually. The follow-up period was limited to a median of 47 months.

Primary surgery was performed as hemithyroidectomy with paratracheal lymph node dissection [575] or total thyroidectomy with central lymph node dissection [399]. Of 1,179 primary active patients, 94 (8.0%) underwent secondary surgery. The reasons for this were a changed patient preference (54%), an increase in the size of the tumor

(29%) or the occurrence of lymph node metastases (6%).

The following significant differences were found between the two treatment groups (primary active surveillance *vs.* primary surgery): transient vocal cord paresis 0.6% *vs.* 4.1%; transient hypocalcaemia 2.8% *vs.* 16.7%; permanent hypoparathyroidism 0.08% *vs.* 1.6%; Thyroxine substitution 20.7% *vs.* 66.1%; postoperative hematoma 0% *vs.* 0.5%; surgical scar 8.0% *vs.* 100%. No significant differences were found in the parameters permanent vocal cord paresis, cervical recurrence and death.

The present retrospective studies are considered to be sufficient basis for the fact that patients with low risk PMC can be offered a primary observational procedure in compliance with certain criteria, since the oncological results are indistinguishable and the operative morbidity during primary observation is significantly lower (1).

The Japanese observational studies have greatly influenced the global discussion of the therapeutic strategy for intrathyroid papillary thyroid carcinoma, shifting the discursive pendulum toward a “less is more” (1).

Whether this is also justified for Europe, where most PMC are diagnosed as pathohistological incidental findings, must now show appropriate studies (4,5).

The absence of race-based results from above reports, and questions about generalizability of the above results to the general population, may not be as robust for European and non-Asian patients.

This situation sheds light on the cautious of interpreting

above results independent of patient race or sociodemographic factors such as insurance status.

No class I evidence has still supported active surveillance over definitive intervention, constituting raises concerns about the applicability of these findings to the European population.

Recent work utilizing genomic sequencing samples has found ethnic over-represented in comparison with others (6).

More aggressive recruitment of European PMC into ongoing and future RCTs is needed to further determine the risk of thyroid cancer progression and the best mechanism to prevent the disparity in clinical outcomes; furthermore, involvement in a tightly controlled RCT may result in much more careful follow-up for these patients than they would normally receive in a general practice, which may lead to a higher rate of salvage therapies (6).

In general, the discussion of active surveillance has been a great development, sparing patients from undergoing unnecessary treatments, and should clearly be had before any definitive treatment is offered. However, should be cautioned that the data supporting active surveillance may be “on thinner ice” for them than for European population still.

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### Footnote

*Conflicts of Interest:* The author has no conflicts of interest to declare.

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