

Comment on “Surgical Outcomes in Patients With Low-Risk Papillary Thyroid Microcarcinoma from MAeSTro Study: Immediate Operation Versus Delayed Operation Following Active Surveillance A Multicenter Prospective Cohort Study”

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The overdiagnosis and overtreatment of patients with low-risk papillary thyroid microcarcinoma (PTMC) led to the initiation of active surveillance studies in many institutions. We read the recent study by Hwang et al¹ in which the authors conducted a multicenter prospective cohort study and evaluated the results of surgical and clinical outcomes in patients with low-risk PTMC who chose delayed operation following active surveillance. This study is clinically relevant and novel, and we would like to raise several concerns.

Although the authors demonstrated that the extent of thyroidectomy and postoperative complications did not differ between delayed operation (DOP) and immediate operation (IOP), we would like to clarify that surgical decision-making for low-risk PTMC is a complex process that must consider multiple aspects.² In this multicenter cohort study, multi-surgeon chose the surgical extent according to their experience, skill level, own and patient preference. In this context, there is a direct relationship between surgeon experience and postoperative complications. The postoperative complication rates are low in experienced hands. This study did not standardize this factor. Therefore, the relationship between unfavorable events and patients who underwent DOP was not causal but just an association affected by confounders. Another area of considerable variation surrounds patients' preferences. Decision-making presenting the hemithyroidectomy or total thyroidectomy (TT) should inform the patient of their downstream risk, as it could significantly impact choices. Socioeconomic differences in medical centers worldwide can also significantly affect the surgical

extent between different countries, as demonstrated in Japan where hemithyroidectomy was adopted as the standard therapy over TT earlier than in other countries.³

In addition, there was a significant difference in the proportion of multifocality between patients who underwent DOP and patients who underwent IOP. Multifocality as an indicator of tumor aggressiveness manifests a higher propensity of lymphatic invasion.⁴ Since multifocal tumors comprised 40.9% of cases in the DOP group, will such a high proportion affect the unfavorable pathological features? Additionally, the results indicated that 109 patients were known to be multifocal papillary thyroid cancer and 109 patients underwent TT in the IOP group. There was no detailed information on how many multifocal papillary thyroid cancer patients have been identified before the operation. Multifocality is an important factor for surgeons to consider the surgical extent,⁵ which can further affect the incidence of postoperative complications. We believe the results should be interpreted cautiously.

Last but not least, disease progression was initially defined in this study to include a size increase of ≥ 3 mm in at least 1 dimension, or ≥ 2 mm in at least 2 dimensions. But with recent advances, the researchers also found significant differences in the rate of the extent of thyroidectomy when tumor volume changes were taken into account. We want to see the data of this part of patients and the difference with the IOP group and wonder if the research team would adjust the timing of surgery for those patients in the DOP group. Therefore, we have several questions that we would appreciate having answered.

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