The Overlooked Outcome: Decision Regret in the Surgical Management of Differentiated Thyroid Cancer

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The Illusion of Surgical Resolution

Every year, thousands of patients in Italy undergo total thyroidectomy for low-risk differentiated thyroid carcinomas. Retrospectively, it is often found that a significant portion of these procedures might not have been necessary. However, surgery is rarely questioned when it is technically successful [1]. The impact of clinical decisions on quality of life, perceived appropriateness of care, and emotional experience is often underestimated. In endocrine surgery, as in other surgical specialties, there is still a lack of sensitivity and competence about the communication of risk and uncertainty. One of the least explored yet most relevant outcomes is decision regret: the emotional distress or remorse experienced when a treatment decision, especially surgical, is later perceived as inappropriate, unnecessary, or excessively aggressive [2,3].

Overtreatment Begins With the Conversation

Differentiated thyroid carcinoma especially in papillary microcarcinoma variant (pT1aN0), reflects the paradigm of overdiagnosis and overtreatment. While its incidence continues to rise, mortality has remained stable for decades. International studies have shown that an increasing number of patients with incidental papillary thyroid microcarcinoma (PTMC) diagnoses could have been managed with active surveillance (AS), which is an option beacuse of the overall low-risk of these cancers, thus avoiding surgery and its potential complications. The practice of AS for low-risk PTMC, which was first established at Kuma Hospital (Kobe, Japan) in 1993 and subsequently at Cancer Institute Hospital (Tokyo) in 1995, is progressively receiving international support, as evidenced by various prospective studies highlighting the positive prognoses for PTMC patients subjected to AS [4,5]. In 2015, the American Thyroid Association (ATA) endorsed the consideration of AS for low-risk PTMC, defined by risk factors that primarily include PTMC without invasion into adjacent tissues, the absence of metastatic dissemination, and a lack of markers indicating high aggressiveness based on cellular or molecular criteria [6]. In selected cases, ultrasound-guided thermal ablation (e.g., radiofrequency, microwave, or laser) may be considered as a non-surgical option. The choice among AS, ablation, or surgery should be individualized, weighing clinical risk stratification and anatomical factors alongside patient values. Nevertheless, some clinicians or patients may express reservations regarding this approach, and in Italy, the tendency to pursue surgical interventions remains disproportionately high, even in the absence of evidence of spreading in the neck or that patient is at high risk [7]. This phenomenon is driven by doctor-patient communication, which is often biased toward surgical procedures, limited familiarity with active surveillance pathways, strict access to molecular risk stratification tools, and a widespread, though not always justified, perception of surgery as the "definitive cure". In such contexts, patients are rarely empowered to make truly informed choices. Shared decision-making, despite being a pillar of modern care, is rarely implemented systematically. Moreover, patients' emotional reactions to a diagnosis (especially when labeled "*carcinoma*") are often underestimated or unaddressed [8]. When, over time, functional complications emerge—such as postoperative hematomas, hypoparathyroidism, dysphonia, suboptimal wound healing and others—or when the disease is later discovered to be far less aggressive than initially assumed, feelings of dissatisfaction, mistrust, or regret may arise. This is decision regret, an outcome measurable through validated tools, but still overlooked in surgical outcome evaluation, especially in endocrine surgery [9].

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Reframing Communication: From Clinical Practice to Medical Education

It is time to integrate a truly patient-centered approach into surgical practice, recognizing communication as a therapeutic act. Endocrine surgery provides an ideal context for this shift: the generally favorable prognosis of many conditions allows time and space for thoughtful discussion between physicians and patients [10]. The adoption of formal instruments for uncertainty communication (such as SPIKES-based protocols adapted to surgery) and shared decision-making (SDM) processes can help reduce the incidence of decision regret, enhancing patient satisfaction and perceived quality of care [11]. Our group has recently launched several initiatives to improve the communication skills of young surgeons, promote AS in selected cases, and systematically measure parameters related to the patient's subjective experience [12,13]. The cultural transition toward patient-centered, communication-based care cannot be achieved without rethinking how we train future doctors. Concepts such as engaging patients in care decisions, decision regret, and the ethics of surgical de-escalation must be introduced early, during medical school, and reinforced throughout residency programs. These are not merely "soft skills", but rather "core clinical skill" that shape how doctors understand risk, uncertainty, and the patient's experience of malignant disease. Incorporating and formalizing communication training into medical curricula, particularly in specialties like endocrine surgery, is essential to promote a new generation of leading surgeons who are not only technically proficient but also ethically and relationally competent. Only by investing in education can we truly redesign care pathways that respect not just outcomes, but also patients' values and preferences. This is not a call to avoid surgery, but to restore dignity to the act of choosing [14,15]. Decisions should integrate age, anatomic/molecular risk (including nodal and recurrence risk), and patient-reported priorities. What is not actively elicited before treatment often resurfaces afterward as decision regret; embedding SDM and uncertainty communication reduces that risk.

Care Is Also Knowing When to Wait

The future of endocrine surgery also rests on our ability to refrain from unnecessary procedures when risks outweigh benefits. However, this move towards less aggressive surgical approaches, when technically and clinically feasible, will not be possible without a communication revolution: learning how to talk about risk and uncertainty, involving patients in choices, and accepting that waiting can also be a form of care. Decision regret is an invisible but tangible outcome of imposed, rushed, or poorly understood decisions. Our aim with this editorial is to highlight the complementary perspective in therapeutic choice: the patient's voice. If not explicitly considered before treatment, it too often resurfaces afterwards as decision regret, amplified and far more difficult to address. Measuring, preventing, and addressing it, this is the cultural challenge that we should face. This may also be one of the most human evolutions of our discipline.

Definitions

Papillary microcarcinoma: a papillary thyroid cancer smaller than 1 cm in diameter.

Active surveillance: the term for avoiding surgery for small thyroid cancers by strictly monitoring them over time with neck ultrasound, clear parameters and physical exam.

Availability of Data and Materials

Not applicable.

Author Contributions

RM, LG, SL, CD and MB conceived the concept. GG and FC outlined the editorial and contributed to the discussion. RM, FC and GG were involved in drafting the manuscript. All authors (RM, LG, GG, FC, MB, SL and CD) have been involved in revising the manuscript critically for important intellectual content. All authors gave final approval of the version to be published. All authors have participated sufficiently in the work to take public responsibility for appropriate portions of the content and agreed to be account able for all aspects of the work in ensuring that questions related to its accuracy or integrity are appropriately investigated and resolved.

Ethics Approval and Consent to Participate

Not applicable.

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Conflict of Interest

Laura Giacomelli is serving as one of the Editorial Board members of this journal. We declare that Laura Giacomelli had no involvement in the peer review of this article and has no access to information regarding its peer review. Other authors declare no conflict of interest.

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