

groups have proposed and performed a complete tumor ablation. Two Korean reports of long-term results showed continuous volume reduction over years.^{8,9} In a single-center study, Lim et al⁸ reported 90% volume reduction at 1 year and 93.5% at 4 years. In a multicenter prospective study, Jung et al⁹ also reported gradual volume reduction over years (80.3% at 1 year, 89.2% at 3 years, and 91.9% at 4 years).

In conclusion, the Mayo Clinic study confirmed that ultrasound-guided RFA is a clinically effective and safe outpatient treatment in patients with symptomatic or steadily growing benign, large, predominantly solid TNs, reproducing the experience generated in European and Asian studies. However, we should consider the pain control method for safety and the treatment strategy to achieve reasonable long-term efficacy.

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In Reply— Radiofrequency Ablation Therapy for Large Benign Thyroid Nodules



To The Editor: We thank Park and Jung¹ for their pertinent comments regarding our article.² They emphasize the use of a transisthmic approach along with a moving-shot technique, both of which we have used, to achieve a safe and effective radiofrequency ablation (RFA) session. In addition, they describe the commonly used approach to anesthesia for RFA—perithyroidal lidocaine injection—and suggest that general anesthesia, as used by us, would not allow monitoring of voice changes during the procedure. To that point they argue that local anesthesia is a safe pain control method that allows voice monitoring and quote³ “only 1% of voice-related complications during RFA of benign nodules” when local anesthesia was used. First, we want to point out that we had no voice-related complications with our approach beyond the periprocedure recovery changes. For safety reasons, we have

purposefully left untreated the outer 5 mm of the nodule. This has not been the case with previous RFA protocols. We chose this safety margin because we wanted the complication rate as close to 0 as possible and this has allowed us to treat the nodules safely without continuous monitoring of voice in a patient under anesthesia. Of course, the volume reduction is less, but we think it is worth the added safety benefit. Second, it is pertinent that we dealt with rather large nodules that require an extensive procedure time. For some nodules the patient positioning required for adequately reaching the target nodule is not a very natural one. In this scenario, eliminating patients' anxiety and movement was beneficial for achieving optimal control of the treated area and minimizing risk to adjacent structures. Third, as the submitted commentary points out, “pain during RFA is tolerable in most patients only using perithyroidal lidocaine injection,” which actually underlines the possibility that for some subjects pain will be an issue with local anesthesia and that could lead to discomfort and more so to undesirable movement during the procedure. In response to this issue, we think that there is a role for both approaches to anesthesia, the ultimate selection depending on the size and location of the target lesion as well as the comfort level of the procedural team with the different approaches. The third issue that Park and Jung bring up relates to the comparison between single-session and multisession RFA. We actually did not perform repeat RFA in our study because it was intended to be a small feasibility pilot study. We do agree with their commentary that repeat RFA is likely to achieve further decrease in nodule volume and, in some cases, avoid the need for surgery. However, in most cases, our goal was symptom relief as opposed to maximum volume

reduction. With that goal achieved we would consider re-treatment if the nodule regrows and/or is symptomatic. For further research we think that it will be important to identify factors associated with nodule regrowth to properly counsel patients for repeat RFA, while conversely eliminating the need for repeat procedures in those who are very likely to do well after single-session RFA.

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The Root Causes of the Current Opioid Crisis



To the Editor: I read with a great deal of interest the article by Rummans et al¹ and the accompanying editorial by Srivastava and Gold² in the March 2018 issue of the *Mayo Clinic Proceedings*.

Both sets of authors should be commended for attempting to address the root causes of the opioid epidemic. In particular, Srivastava and Gold deserve recognition for looking beyond the “supply-side”

approach to the crisis: too often, potential solutions to the epidemic focus solely on the role of pharmaceutical manufacturers or physician prescription patterns.

In their description of the “demand side” of the equation, Srivastava and Gold rightly point to the importance of assessing for the presence of concurrent psychiatric illness in patients with substance use disorders. They also state the necessity of treating addiction as a chronic, relapsing disease, one that requires long-term follow-up.

But in other, critical ways, their editorial paints an incomplete picture. There are additional root causes of the opioid epidemic, which the authors neglect to mention at all—namely, those related to widespread social upheaval.

The past few decades have been characterized by rising unemployment, poverty, and wealth inequality due to neoliberal austerity measures and a fraying social safety net. In disadvantaged communities, social capital becomes supplanted by feelings of isolation and hopelessness. Meanwhile, the US government continues to engage in drug interdiction efforts, which, in turn, lead to the emergence of synthetic and deadly heroin alternatives in the domestic black market.³

The end result of these seemingly disparate processes, of course, is what we see before us today: increasing overdoses and other “diseases of despair.”⁴ No discussion of the “underpinnings and evolution of the current opioid crisis” is thus complete without an account of these structural factors.

I agree with the authors’ recommendation that “more resources need to be devoted to addressing the opioid epidemic,” including implementing comprehensive care programs. I worry, however, that other recommendations, such as developing personalized

neurotherapeutics, would draw attention away from what many in the public health community are beginning to realize: structural disadvantage contributes to addiction, and overcoming it will require more than a biomedical approach.

Physicians are in a privileged position to guide the conversation around this important topic. In addition to spreading the important message of “addiction as a disease,” we should be advocating for social change.

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In Reply I—Root Causes of the Opioid Crisis



To the Editor: We thank Dr. Pendyal for the thoughtful and articulate response to our article.¹ We agree that a thorough examination of opioid use disorders and overdoses includes evaluation of structural- and societal-level factors. Indeed, income inequality, social disparities, and other structural inequities are important considerations in chronic illnesses, disease management, premature deaths, infant mortality,