Dr. Vaninder K. Dhillon: my thoughts on nerve monitoring

Received: 10 May 2019; Accepted: 26 May 2019; Published: 28 May 2019.
doi: 10.21037/aot.2019.05.01
View this article at: http://dx.doi.org/10.21037/aot.2019.05.01

Editor's note

The focused issue "*The Management of Thyroid Tumors in 2020 and Beyond*" edited by Drs. Jonathon Russell and Jeremy Richmon is going to be released in *Annal of Thyroid (AOT)* in the coming months. This issue aims to review the state-of-art in the management of thyroid pathology, to provide a venue for original research focused on remote access or minimally invasive thyroid management and to review the success at extending proven management strategies into new geographic regions. Taking this opportunity, we have done a series of interviews with the authors discussing the highlights of their articles and sharing their experiences or stories in this field.

Dr. Vaninder K. Dhillon from Johns Hopkins Hospital has been researching into thyroid and parathyroid surgery for benign and malignant lesions, laryngology which includes voice and swallowing disorder for many years. It is such an honor for *AOT* to interview Dr. Dhillon on her article "*Nerve monitoring review*" contributing to the focused issue and her stories in this field.

Expert's introduction

Vaninder K. Dhillon, MD (*Figure 1*), is an assistant professor of Otolaryngology - Head and Neck Surgery at Johns Hopkins University School of Medicine, specializing in adults. Dr. Dhillon is board-certified in Otolaryngology by the American Board of Otolaryngology. She practices out of Johns Hopkins Otolaryngology - Head and Neck Surgery in Bethesda, Maryland. Dr. Dhillon is also affiliated with Johns Hopkins Hospital in Baltimore, Maryland.

Dr. Dhillon has an expertise in thyroid and parathyroid surgery for benign and malignant lesions, laryngology which includes voice and swallowing disorders. She is currently researching the role of voice outcomes in patients after thyroid and parathyroid surgery when there is concern for vocal fold weakness or paralysis. She is also evaluating the role of office-based treatment on vocal fold paralysis and neurogenic cough, as well as neurogenic recovery of vocal fold paralysis.

Dr. Dhillon was born in Honolulu, Hawaii. She grew up in Northern California, and completed college, medical school and her Otolaryngology residency in Los Angeles, California. Dr. Dhillon completed two fellowships at Johns Hopkins Baltimore, one in laryngology and the other in Endocrine Head and Neck Surgery. She currently resides in Bethesda, Maryland where she is now part of the Johns Hopkins Otolaryngology team in the National Capital Region. In her free time, Vaninder enjoys spending time endurance running, and spending her time with her husband cooking, watching films and traveling.

Interview

AOT: What brought you to the field of otolaryngology-head and neck surgery?

Dr. Dhillon: When I was in college, I had the opportunity to spend time with a Head and Neck/Endocrine Surgeon at University of Southern California (USC) where I was in school. I had the opportunity to shadow him in clinic and in the operating room and realized how much I love surgery in the head and neck. He became my mentor and then my attending during training at USC where I completed my medical school and Otolaryngology residency.

AOT: Could you introduce to us the main focus of your current research? Which specific questions do you want to address in the future?

Dr. Dhillon: The main focus of my current research is on voice and swallow outcomes after thyroid and parathyroid surgery. I am currently evaluating patients before and after surgery with videostroboscopy and validated voice and swallow questionnaires to determine changes that may or may not occur after thyroid surgery. My main focus is on functional voice and swallow concerns that may go undiagnosed preoperatively and how we can influence improved outcomes post operatively. Intraoperative nerve monitoring may play a role in understanding outcomes as it pertains to neurogenic recovery of vocal fold weakness post

Figure 1 Vaninder K. Dhillon, MD.

operatively (if determined on videostroboscopy).

AOT: In the focused issue "The Management of Thyroid Tumors in 2020 and Beyond", you have contributed an article on "nerve monitoring review" with Drs. Joseph Scharpf and Catherine Sinclair. What are the main points of it?

Dr. Dhillon: The main focus of our article '*Nerve monitoring review*' is on the current practice of the use of intraoperative nerve monitoring, the advantages of intermittent versus continuous nerve monitoring, and the literature published that suggests its role in avoiding vocal fold weakness post thyroid and parathyroid surgery. We want to address the technological changes in nerve monitoring as it pertains to increased specificity for nerve weakness detection and prevention intraoperatively. There are new advancements on the horizon and we illustrate this within the article.

AOT: Could you share with us one of your impressed cases about nerve monitoring?

Dr. Dhillon: One of my favorite cases using nerve monitoring was in a patient that had recurrent papillary thyroid carcinoma, and underwent her second (re-operative) central neck dissection on the side for which she had an intact recurrent laryngeal nerve (RLN) (the other side had been involved with cancer and she had resection of that nerve). We dissected central neck disease from the nerve but nerve remained intact and there was good signal on the intraoperative nerve monitoring. Post operatively she had some vocal fold paresis on videostroboscopy, but over the course of 3 months she had full recovery of the nerve. Intraoperative nerve monitoring certainly helped us prognosticate the recovery of a very tenuous nerve, and save her from having a tracheostomy at the time for bilateral vocal fold paralysis.

AOT: In your opinion, what are the challenges of nerve monitoring during the management of thyroid tumor? And what would be your advices on successful nerve monitoring to our readers?

Dr. Dhillon: The challenges of nerve monitoring come in its set up, troubleshooting and in trying to use the technology to understand neurophysiologic function during surgery. It is important to read published guidelines to standardize its use for each case, in order to use the technology as a means to inform or change management when it comes to neural dissection intraoperatively. My advice is to determine pitfalls and challenges you may face when using the technology and seek results with your operative cases. Once you have some data, compare with what is published out there and ask questions for the experts in the field. Adoption of the technology requires participation in it and asking questions to improve your individual practice. Lastly, never seek to substitute good surgical dissection with monitoring. Expertise is the most important.

Acknowledgments

We would like to express our sincerest gratitude to Dr. Vaninder K. Dhillon for sharing her stories, insights and opinions with us.
Funding: None.

Footnote

Provenance and Peer Review: This article was commissioned by the editorial office, *Annals of Thyroid* for the series "Meet the Professor". The article did not undergo external peer review.

Conflicts of Interest: Both authors have completed the ICMJE uniform disclosure form (available at http://dx.doi.org/10.21037/aot.2019.05.01). The series "Meet the

Professor" was commissioned by the editorial office without any funding or sponsorship. The authors report that they are full-time employees of AME Publishing Company. The authors have no other conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

(Science Editors: Silvia Zhou, Wymen Chen, AOT, AOT@amegroups.com)

doi: 10.21037/aot.2019.05.01

Cite this article as: Zhou S, Chen W. Dr. Vaninder K. Dhillon: my thoughts on nerve monitoring. Ann Thyroid 2019;4:8.