



a place of mind

**THE UNIVERSITY OF BRITISH COLUMBIA**

**Division of Otolaryngology**

Department of Surgery

Faculty of Medicine

Vancouver General Hospital

Gordon & Leslie Diamond Health Care Centre

4<sup>th</sup> Floor, 2775 Laurel Street

Vancouver, BC Canada V5Z 1M9

Tel: 604-875-8296

Fax: 604-875-8297

[arif.janjua@ubc.ca](mailto:arif.janjua@ubc.ca)

**Endoscopic Sinus and Skull Base Surgery Fellowship  
VINAY VARADARAJAN**

**Summary Log of Clinical and Academic Activity during the Fellowship Year  
October 16<sup>th</sup>, 2017 – September 14th, 2018**

---

<b>Total of Endoscopic Endonasal Surgeries involved as primary surgeon or surgical assistant</b>	<b>212</b>
--	------------

---

**Endoscopic Endonasal surgery for Inflammatory conditions**

---

<b>Procedure</b>	<b>Number</b>
<b>Endoscopic Nasal, Septal and Sinus Surgery</b>	
Computer Assisted Endoscopic Sinus Surgery	
For Sino-Nasal Inflammatory Conditions:	
<input type="checkbox"/> Chronic Rhinosinusitis with Polyps	142
<input type="checkbox"/> Chronic Rhinosinusitis without Polyps	
<input type="checkbox"/> Allergic Fungal Sinusitis	
<input type="checkbox"/> Recurrent Acute Sinusitis	
<input type="checkbox"/> Non Invasive fungal sinusitis (Fungal balls, AFS)	
<input type="checkbox"/> Mucoceles	
<input type="checkbox"/> Silent Sinus Syndrome	

---



a place of mind

**THE UNIVERSITY OF BRITISH COLUMBIA**

**Division of Otolaryngology**

Department of Surgery

Faculty of Medicine

Vancouver General Hospital

Gordon & Leslie Diamond Health Care Centre

4<sup>th</sup> Floor, 2775 Laurel Street

Vancouver, BC Canada V5Z 1M9

Tel: 604-875-8296

Fax: 604-875-8297

[arif.janjua@ubc.ca](mailto:arif.janjua@ubc.ca)

---

Primary vs Revision ESS breakdown:

- Primary Endoscopic Sinus Surgery 85
- Revision Endoscopic Sinus Surgery 57

---

Endoscopic Septoplasty/Nasal Septal Reconstruction) and inferior turbinate reduction (*as a part of ESS or as a separate procedure*) 102

---

Endoscopic Sphenopalatine Artery ligation for epistaxis 1

---

Endoscopic Subperiosteal Drainage of Orbital Abscess 1



a place of mind

**THE UNIVERSITY OF BRITISH COLUMBIA**

**Division of Otolaryngology**

Department of Surgery

Faculty of Medicine

Vancouver General Hospital

Gordon & Leslie Diamond Health Care Centre

4<sup>th</sup> Floor, 2775 Laurel Street

Vancouver, BC Canada V5Z 1M9

Tel: 604-875-8296

Fax: 604-875-8297

[arif.janjua@ubc.ca](mailto:arif.janjua@ubc.ca)

## **Endoscopic Endonasal surgery for Tumours and Skull Base pathologies.**

<b>Procedure</b>	<b>Number</b>
<b>Endoscopic Sinonasal tumour resections [N=19]</b>	
<b><i>Benign Sinonasal Tumours</i></b>	
<input type="checkbox"/> Inverted Papilloma	
<input type="checkbox"/> Lobular Capillary Haemangioma	
<input type="checkbox"/> Oncocytic Cell Papilloma	
<input type="checkbox"/> Histiocytic Cyst (Pterygoid Wedge)	
<input type="checkbox"/> Odontogenic Keratocyst	
<b><i>Malignant Sinonasal Tumours</i></b>	
<input type="checkbox"/> Mucosal Melanoma	
<input type="checkbox"/> Squamous Cell Carcinoma	



a place of mind

**THE UNIVERSITY OF BRITISH COLUMBIA**

**Division of Otolaryngology**

Department of Surgery

Faculty of Medicine

Vancouver General Hospital

Gordon & Leslie Diamond Health Care Centre

4<sup>th</sup> Floor, 2775 Laurel Street

Vancouver, BC Canada V5Z 1M9

Tel: 604-875-8296

Fax: 604-875-8297

[arif.janjua@ubc.ca](mailto:arif.janjua@ubc.ca)

---

## **Endoscopic Skull Base Approaches [Total = 42]**

*Neurosurgeon - Dr. Peter Gooderham*

*Orbital Surgeon - Dr. Peter Dolman*

---

## **Endoscopic Trans-Sphenoidal Pituitary Tumour resection [N= 25]**

- Non-Functional Macradenoma
- Functional – Cushing’s, Acromegaly
- Rathke’s Cleft Cysts

## **Expanded Endoscopic Skull Base Approaches [N= 18]**

---

Endoscopic Trans-Planum Approach for Craniopharyngioma	3
--	---

---

Endoscopic Trans-Planum Approach for Extensive Rathke’s Cyst	1
--	---

---

Endoscopic Craniofacial Resection (eCFR)

- Meningioma
  - Esthesioneuroblastoma
  - Sinonasal Salivary Ductal Carcinoma
  - Glomangiopericytoma
- 
- 5

---

Endoscopic-Assisted Craniofacial Resection (e-A CFR)

- Esthesioneuroblastoma
  - Fibro-osseous Tumour
- 
- 2
-



a place of mind

## THE UNIVERSITY OF BRITISH COLUMBIA

### Division of Otolaryngology

Department of Surgery

Faculty of Medicine

Vancouver General Hospital

Gordon & Leslie Diamond Health Care Centre

4<sup>th</sup> Floor, 2775 Laurel Street

Vancouver, BC Canada V5Z 1M9

Tel: 604-875-8296

Fax: 604-875-8297

[arif.janjua@ubc.ca](mailto:arif.janjua@ubc.ca)

---

Orbital Cavernous Haemangioma	1
Endoscopic Transpterygoid approaches for Tumours (JNA)	2

---

---

<b>Estimated Total CSF Leak Repairs</b>	~30
---	-----

---

Specific unique cases:

CSF Leak Repair of entire Cranial Base ( <i>after Endoscopic Craniofacial Resection</i> ) following Failed Nasoseptal Flap	1
CSF Leak Repair for Bilateral Spontaneous Cribriform Dehiscence	1
Congenital Meningoencephalocele from Lateral Recess of Sphenoid / Sternberg's Canal (Transmaxillary Approach)	1
CSF Leak repair of Post Traumatic Meningoencephalocele	1



a place of mind

**THE UNIVERSITY OF BRITISH COLUMBIA**

**Division of Otolaryngology**

Department of Surgery

Faculty of Medicine

Vancouver General Hospital

Gordon & Leslie Diamond Health Care Centre

4<sup>th</sup> Floor, 2775 Laurel Street

Vancouver, BC Canada V5Z 1M9

Tel: 604-875-8296

Fax: 604-875-8297

[arif.janjua@ubc.ca](mailto:arif.janjua@ubc.ca)

### **Endoscopic Endonasal Procedures performed by the Fellow (as primary surgeon) in the Operative Room**

<b>Procedure</b>	<b>Number</b>
<b>Endoscopic Sinus Surgery</b>	
• Frontal sinusotomies (Draf 2a/2b)	102
• Total ethmoidectomy (Anterior & Posterior -with skull base and orbit skeletonised)	138
• Sphenoidotomies	35
• Maxillary Antrostomy	84
• Endoscopic Septoplasty	13
• Fungal Balls / Mycetoma Removal	5
• Draf 3	1
<b>Endoscopic Skull Base surgeries</b>	
<input type="checkbox"/> Nasoseptal flap for skull base reconstruction	13
<input type="checkbox"/> Rostrectomy	14
<input type="checkbox"/> Endoscope Driving during Skull Base tumour resection – 4 hand technique with Neurosurgeon	34



a place of mind

## THE UNIVERSITY OF BRITISH COLUMBIA

### Division of Otolaryngology

Department of Surgery

Faculty of Medicine

Vancouver General Hospital

Gordon & Leslie Diamond Health Care Centre

4<sup>th</sup> Floor, 2775 Laurel Street

Vancouver, BC Canada V5Z 1M9

Tel: 604-875-8296

Fax: 604-875-8297

[arif.janjua@ubc.ca](mailto:arif.janjua@ubc.ca)

<input type="checkbox"/> Cranial Base Repair	5
<input type="checkbox"/> Fascia Lata Harvest	6
<input type="checkbox"/> Endoscopic Anterior Ethmoidal Artery Ligation	1
<input type="checkbox"/> Pterygopalatine Fossa exposure/dissection	1

### Endoscopic Endonasal Procedures performed by the Fellow (As Primary Surgeon) in the Ambulatory Clinic

Procedure	Number
<input type="checkbox"/> Endoscopic In-Office Polypectomy, Endoscopic Endonasal Biopsies and Small Benign Tumour Resections	20
<input type="checkbox"/> Diagnostic Endoscopic Examination (flexible and rigid endoscopy)	~1,500



a place of mind

**THE UNIVERSITY OF BRITISH COLUMBIA**

**Division of Otolaryngology**

Department of Surgery

Faculty of Medicine

Vancouver General Hospital

Gordon & Leslie Diamond Health Care Centre

4<sup>th</sup> Floor, 2775 Laurel Street

Vancouver, BC Canada V5Z 1M9

Tel: 604-875-8296

Fax: 604-875-8297

[arif.janjua@ubc.ca](mailto:arif.janjua@ubc.ca)

**Academic Activities - Fellowship Year  
VINAY VARADARAJAN**

**October 16<sup>th</sup>, 2017 – September 14<sup>th</sup>, 2018**

**Medical Education:**

**Resident Education:**

Dr. Varadarajan supervised and taught the following residents, both in the operating room as well as the outpatient clinic.

Dr. Dianne Valenzuela (R3) – 1 month

Dr. Michael Yong (R3) – 2 months

Dr. Joel Howlett (R1) – 1 month

Dr. Kevin Zhao (R1) – 1 month

Dr. Ethan Newton (R3) – 3 months

He took part in Rhinology Board Exam teaching for Dr. Josh Gurberg (R5)

He also supervised the ‘Urgent access/Resident teaching clinic’ every month at Vancouver General Hospital.

**Medical Students**

Dr. Varadarajan delivered and facilitated the following teaching session for 2<sup>nd</sup> year Medical Students at the University of British Columbia

- “Clinical Skills in Otolaryngology Head & Neck Surgery” - Vancouver General Hospital, 27<sup>th</sup> February 2018





a place of mind

**THE UNIVERSITY OF BRITISH COLUMBIA**

**Division of Otolaryngology**

Department of Surgery

Faculty of Medicine

Vancouver General Hospital

Gordon & Leslie Diamond Health Care Centre

4<sup>th</sup> Floor, 2775 Laurel Street

Vancouver, BC Canada V5Z 1M9

Tel: 604-875-8296

Fax: 604-875-8297

[arif.janjua@ubc.ca](mailto:arif.janjua@ubc.ca)

### **Publications:**

#### **Completed / For Submission**

- “Complete Devascularization of Large Juvenile Nasopharyngeal Angiofibromas utilizing Intraarterial Particle Embolisation and Direct Tumoural Puncture with Onyx”

*Varadarajan V, Janjua A, Heran M*

*Submitted to the Journal of Otolaryngology – Head & Neck Surgery*

#### **In Preparation**

- “Do Pre-operative Lund-Mackay Computed Tomography Scores accurately predict Post-Operative Quality of Life Improvements in Chronic Rhinosinusitis Patients?”

*Valenzuela D, Varadarajan V, Sutherland J, Liu G, Crump T, Janjua A*

### **Presentations & Lectures:**

#### **National / Canadian**

- “Complete Devascularization of Large Juvenile Nasopharyngeal Angiofibromas utilizing Intraarterial Particle Embolisation and Direct Tumoural Puncture with Onyx”

*Varadarajan V, Heran M, Janjua A*

Poster Presentation – Quebec City, Canada, 72nd annual meeting of the Canadian Society of Otolaryngology - Head and Neck surgery, June 16th-19th 2018



a place of mind

## THE UNIVERSITY OF BRITISH COLUMBIA

### Division of Otolaryngology

Department of Surgery

Faculty of Medicine

Vancouver General Hospital

Gordon & Leslie Diamond Health Care Centre

4<sup>th</sup> Floor, 2775 Laurel Street

Vancouver, BC Canada V5Z 1M9

Tel: 604-875-8296

Fax: 604-875-8297

[arif.janjua@ubc.ca](mailto:arif.janjua@ubc.ca)

### Local / Regional

- “Better Surgical Outcomes: Novel Immunomodulation Strategies”  
*Varadarajan V, Janjua A*  
Lecture / Oral Presentation – Division of Otolaryngology Grand Rounds.,  
University of British Columbia, Vancouver, Canada, 24<sup>th</sup> January 2018

### Rhinology Rounds (Oral Presentations) – University of British Columbia

Actively participated in city-wide Rhinology rounds held the first Wednesday of every month. . Delivered the following oral presentations:

- “The Vidian Nerve” – *Varadarajan V, Janjua A*
- “Rathke’s Cleft Cyst” - *Varadarajan V, Janjua A*
- “Skull Base Reconstruction” - *Varadarajan V, Janjua A*
- “Principles in Endoscopic Tumour Excision” - *Varadarajan V, Janjua A*
- “From MESS to FESS – Revision Sinus Surgery” - *Varadarajan V, Janjua A*
- “Medial Maxillectomy and Inverted Papilloma Excision” - *Varadarajan V, Janjua A*
- “Nasoseptal Flap Harvest: - *Varadarajan V, Janjua A*
- “Rhinology Exam Cases for the Board Exams” - *Varadarajan V, Janjua A*
- “Coronal Plane Made Easy” - *Varadarajan V, Janjua A*

### Presentations Created for Fellowship Director

At the request of Dr Janjua, Dr Varadarajan formulated the following presentations:

- “Medical Management of Chronic Rhinosinusitis”, Reviewed and then Delivered by Dr Janjua at the University of Toronto Rhinology Update 2018



a place of mind

**THE UNIVERSITY OF BRITISH COLUMBIA**

**Division of Otolaryngology**

Department of Surgery

Faculty of Medicine

Vancouver General Hospital

Gordon & Leslie Diamond Health Care Centre

4<sup>th</sup> Floor, 2775 Laurel Street

Vancouver, BC Canada V5Z 1M9

Tel: 604-875-8296

Fax: 604-875-8297

[arif.janjua@ubc.ca](mailto:arif.janjua@ubc.ca)

- “Aspirin Exacerbated Respiratory Disease”, Reviewed and then Delivered by Dr Janjua at the UBC Sinus and Skull Base course 2018

### **Multi Disciplinary Team Working**

Dr. Varadarajan regularly attended the weekly Head and Neck Cancer Tumour Board with Dr. Janjua

### **Courses & Conferences Attended**

- Stryker's Mobile Rhinology and Skull Base Cadaveric Laboratory, Vancouver General Hospital, Vancouver, Canada July 9<sup>th</sup> -11<sup>th</sup> 2018
- American Rhinology Society 7<sup>th</sup> Annual Summer Sinus Symposium, Seattle USA July 12<sup>th</sup> - 14<sup>th</sup> 2018
  - Medtronic Endoscopic Sinus Surgery Cadaveric Laboratory, ARS 7<sup>th</sup> Annual Summer Sinus Symposium, Seattle USA July 12<sup>th</sup> 2018
  - Medtronic Rhinologic Office Based Procedures Cadaveric Laboratory, ARS 7<sup>th</sup> Annual Summer Sinus Symposium, Seattle USA July 12<sup>th</sup> 2018
  - Frontal Sinus Masterclass (Chen & Wormald) ARS 7<sup>th</sup> Annual Summer Sinus Symposium, Seattle USA July 14<sup>th</sup> 2018
- North American Skull Base Society Skull Base Surgery Course, LSU Health Sciences Center, New Orleans, USA July 26th-29th, 2018



a place of mind

**THE UNIVERSITY OF BRITISH COLUMBIA**

**Division of Otolaryngology**

Department of Surgery

Faculty of Medicine

Vancouver General Hospital

Gordon & Leslie Diamond Health Care Centre

4<sup>th</sup> Floor, 2775 Laurel Street

Vancouver, BC Canada V5Z 1M9

Tel: 604-875-8296

Fax: 604-875-8297

[arif.janjua@ubc.ca](mailto:arif.janjua@ubc.ca)

- University of British Columbia Sinus and Skull Base Course, UBC Life Sciences Institute, Vancouver, Canada. August 10<sup>th</sup> – 12<sup>th</sup> 2018
- University of British Columbia Rhinology Fellows Cadaveric Labs – Throughout the course of his fellowship, Dr. Varadarajan attended quarterly Cadaveric Lab sessions in the facilities of CESEI (Center of Excellence for Surgical Education and Simulation) in the Vancouver General Hospital

Fellowship Director:

Arif Janjua, MD FRCSC

Rhinology, Endoscopic Sinus & Skull Base Surgery

Division of Otolaryngology - Head & Neck Surgery

Vancouver General Hospital & St. Paul's Hospital

Clinical Associate Professor, University of British Columbia