



# AIRAVAT BULLETIN

MONTHLY CHARTER

July 2025 Edition



# ICG DYE IN ESOPHAGECTOMY- MODERN MARVEL FOR PRECISION SURGERY

## Introduction

Esophagectomy remains a cornerstone in the treatment of localized esophageal cancer, but complications such as anastomotic leaks and airway injuries continue to contribute to morbidity. Conventional methods of assessing conduit viability or identifying airway structures rely heavily on subjective judgment. ICG fluorescence offers surgeons objective, real-time visualization that can improve precision and safety.

## Indications

- **Perfusion angiography (Intravenous):** Following gastric conduit creation, a peripheral intravenous bolus of ICG is administered. NIR cameras capture the inflow pattern, with parameters such as fluorescence onset, peak intensity, and slope used to identify the most well-perfused segment for anastomosis. This allows objective selection of the conduit tip rather than reliance on visual cues or palpation.
- **Thoracic duct visualization (Inguinal Injection):** Dilute ICG injected into superficial inguinal nodes highlights the thoracic duct intraoperatively. This facilitates safer dissection in the mediastinum and allows rapid identification in cases of suspected chylothorax.
- **Inhalational ICG for airway identification:** A novel approach involves nebulizing or aerosolizing ICG through the endotracheal tube. Once inhaled, the tracheobronchial mucosa takes up the dye, and under NIR imaging, the trachea fluoresces distinctly. This is especially valuable during minimally invasive esophagectomy or reoperative thoracic procedures where scarring, tumor infiltration, or post-therapy changes obscure normal anatomy. The technique helps prevent inadvertent tracheal injury and improves orientation during mediastinal dissection.

## Dosage and Administration

For perfusion assessment, intravenous doses range from 0.06–0.25 mg/kg (typically 2.5–25 mg), with the option of repeat boluses after washout. For thoracic duct visualization, small aliquots of dilute ICG (0.5–1 mL) are injected into each groin node. Inhalational techniques often use a nebulized solution of 2.5–5 mg ICG in sterile water, administered shortly before thoracic dissection.

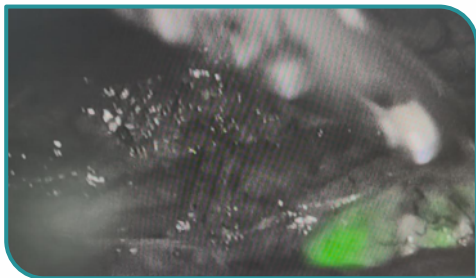
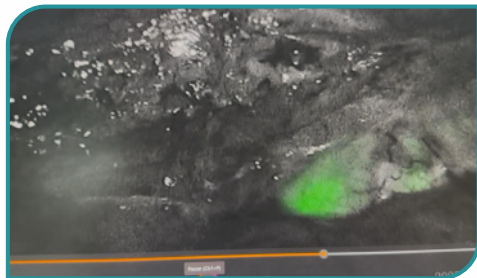
## Benefits

ICG fluorescence provides multiple advantages:

- Reduced leak rates by guiding anastomosis to better-perfused tissue.
- Enhanced intraoperative safety through visualization of the thoracic duct & trachea.
- Low toxicity and repeatability, making it suitable for real-time intraoperative use without significant disruption of workflow.

## Conclusion

ICG fluorescence has evolved from a perfusion assessment tool to a versatile intraoperative adjunct in esophageal cancer surgery. Its inhalational application for tracheal identification represents a promising innovation, addressing a longstanding surgical challenge. As dosing regimens and imaging metrics become standardized, ICG is poised to become an integral part of precision surgery.



Scan QR to Watch the Video!



# KYC with ACC

Know Your Cancer with Airavat Cancer Care

## Ovarian Cancer

- Arising from female reproductive organs – ovaries, which lay off eggs and hormones.
- 3rd most common cancer amongst females. (Globocan 2022, India)
- Often neglected due to vague symptoms.

### Myths

Stage 4 Ovarian Cancer with ascites and organ spread can't be cured.

### Facts

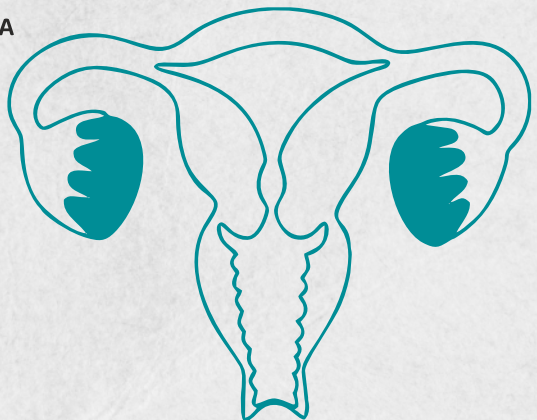
With recent advanced multimodality treatment, Stage IV Ovarian Cancer can be cured!

**Lets Know more about Ovarian Cancer...**

## Risk Factors of Ovarian Cancer

### Associated Risk

1. Family History of Breast / Ovarian or Colon Cancer
2. Genetic Mutations, like BRCA
3. Post-Menopausal
4. Increased Age





## Symptoms of Ovarian Cancer



**Pelvic or  
Abdominal Pain**



**Abdominal  
Distension**



**Back Pain**



**Trouble Eating or  
Feeling Full Quickly**



**Constipation or  
Urinary Problems**



**Fatigue**

## Diagnosis of Ovarian Cancer

**Tests and procedures used to diagnose ovarian cancer include:**



**Clinical Examination**



**Blood Tests- Serum Tumor Markers**



**Imaging - CECT Scan, MRI Pelvis, PET CT Scan**



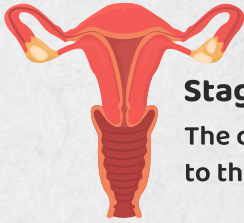
**Biopsy- Trucut Biopsy Under Image Guidance**



**Genetic Assessment**

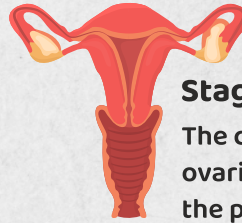
Once it's confirmed that you have ovarian cancer, your doctor will use information from your tests and procedures to assign your cancer a stage.

## Stages of Ovarian Cancer



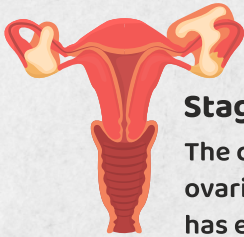
### Stage 1

The cancer is confined to the ovaries.



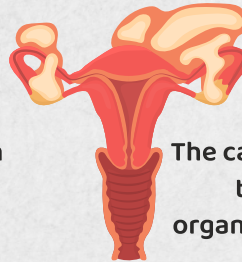
### Stage 2

The cancer is one or both ovaries and has spread to the pelvic region.



### Stage 3

The cancer is one or both ovaries, and the cancer has either spread to the lining of the abdomen or to the lymph nodes in the back of the abdomen.



### Stage 4

The cancer has metastasized to distant sites or other organs outside the abdomen and pelvic region.

## Treatments of Ovarian Cancer

### ◆ Multimodality Treatment

- Upfront Surgery → Adj. Chemo ± Targeted Therapy
- Induction Chemo(IC) ± Targeted Therapy → Surgery → Adj. Chemo

### ◆ Surgical Mx

- ✦ **Staging Laparotomy (Stage I, II)**
  - TAH + BSO
  - BPLND + LPLND
  - Omentectomy
  - Fluid Cytology
- ✦ **Cytoreductive Surgery (Stage III)**
  - Total or Selective Peritonectomy
  - Multivisceral Resection

### ◆ HIPEC

- Open Method
- Closed Method

## CASE OF THE MONTH

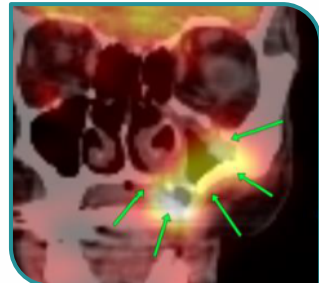
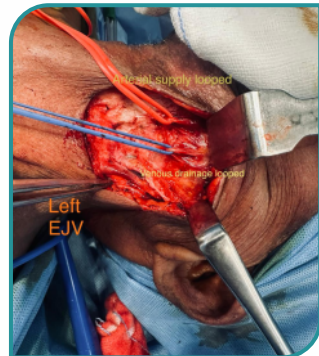
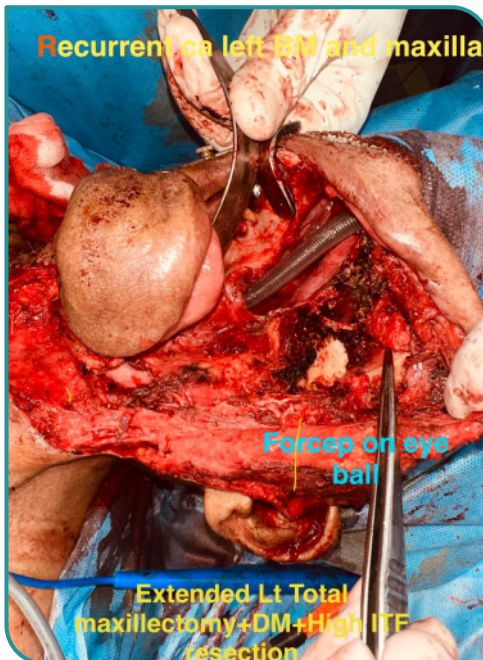
### RECURRENT CA MAXILLA (VERY LOCALLY ADVANCED rcT4B)

A 68-year-old geriatric patient presented with recurrent carcinoma of the left maxilla and buccal mucosa, with zero mouth opening, following primary surgery performed 4 years ago.

The patient was evaluated with MRI and PET-CT, and after complete workup, the diagnosis was stage IV recurrent cancer involving the left maxilla with infiltration into the retromaxillary space and ITF.

The patient underwent surgery with **“Wide Excision of Left Buccal Mucosa + Left Dermal Mucosa + Extended Left Total Maxillectomy with High ITF Resection and ALT Flap Reconstruction.”**

Case demonstrates excellent surgical skill, great operative and perioperative care in managing a geriatric gentleman undergoing a supra-major resection.





## RPLND

### Retroperitoneal Paraaortic Lymph Node Dissection (RPLND): A Key Surgical Approach in Testicular Cancer

Retroperitoneal Paraaortic Lymph Node Dissection (RPLND) is a specialized surgical procedure used primarily in the management of testicular germ cell tumors. The retroperitoneum, particularly the paraaortic region, is the first site where these cancers spread, making RPLND both a diagnostic and therapeutic tool.

#### Key Points

- **When is it done?**

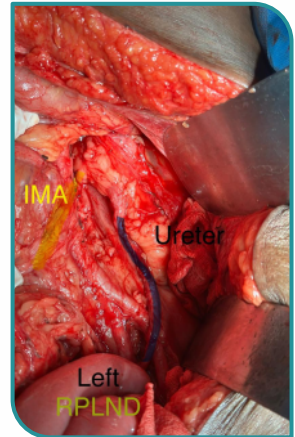
In patients with non-seminomatous germ cell tumors (NSGCT), especially when residual masses remain after chemotherapy or in early-stage disease with high risk of spread.

- **What does it involve?**

Removal of lymphatic tissue around the aorta and vena cava between the renal vessels and the iliac bifurcation.

- **Different Surgical Templates**

- Full Bilateral Template RPLND – Classical, extensive approach covering both sides of the great vessels; ensures maximum oncological clearance but higher risk of side effects.
- Modified Unilateral Template RPLND – Limited dissection on the side of primary tumor drainage (right or left), reducing morbidity while maintaining oncological safety in early or low-volume disease.
- Nerve-Sparing RPLND – Focuses on preserving sympathetic nerve fibers to maintain ejaculation and fertility, particularly important in younger patients.



#### Advantages

- Provides accurate staging and long-term disease control.
- In experienced hands, RPLND offers excellent survival outcomes.
- Modern templates & nerve-sparing techniques help preserve fertility & quality of life.
- Possible Risks
- Bleeding, chylous ascites, bowel obstruction.
- Retrograde ejaculation, though minimized with nerve-sparing surgery.

#### Conclusion

RPLND remains an important part of the multimodal treatment strategy for testicular cancer, particularly in select patients after chemotherapy. With evolving minimally invasive and template-based approaches, it continues to offer both curative benefit and preservation of quality of life when performed at specialized centers.

## ACTIVITIES AND ENGAGEMENT

### EVENT OF DENTAL ASSOCIATION

**SUCCESSFULLY CONDUCTED!** Our Oral Malignancy Biopsy Workshop in association with IDA Ahmedabad and DPS Ahmedabad was a grand success!

Held at Radisson Blu, the workshop empowered dental professionals with hands-on knowledge and invaluable insights into oral cancer care.

Huge thanks to our guest speakers, organizing team, and enthusiastic participants who made this event truly impactful! Under one roof Biopsy hands-on workshop conducted for more than 80 delegates. Powerful lectures and video presentations made event a huge success.

Let's continue the journey of proactive wellness and early diagnosis in dentistry.





Mirchi Love 104 FM,  
Featuring Dr. Manish Sadhwani,  
Surgical Oncologist,  
discussing HIPEC Surgery



Scan to Listen  
Full Interview!

## PATIENT'S REVIEWS

Airavat Cancer Care - One of the best Hospital in Ahmedabad according to my research and knowledge.

Mr. Manish Sir and his team (Dhavalbhai, Jaybhai, Jayeshbhai and many more) are very humble and polite in nature. Each and every questions by patient and their relative are answered by all of them and at anytime.

Highly recommended if any one's relative is facing cancer, must visit this hospital. Thanks Once Again Manish Sir and Team for your valuable efforts and accurate results.

**- Tejas Adeshara**

I got admitted in Airavat cancer hospital. And really had a great experience. Extremely happy with all the services here. Food services also good. All the staff here are really nice and caring, Medical officer, nurses and attendant staff, all are really Cooperative.

Highly satisfied with the treatment provided by Dr. Ronak sir & Dr Rushit Dave , we highly appreciate the cancer team for all the treatment.

I am so grateful to have the opportunity to experience the outstanding care and hospitality... at AIRAVAT Cancer care hospital. I would highly recommend this hospital to anyone seeking medical attention.

Thank you to the entire team.

**- Dharmendrasinh Gohil**

The services that I receive from Dr Manish & Dr Rushit is excellent. Dr. Manish Sadhwani and the staff are friendly and ensure that I am properly informed about my health and care. I would have no qualms in recommending them to friendly and friends.

Thank you so much Airavat cancer team

**- Jonibhai Rangapara**



## Outreach OPDs

### AMRELI

Raghavendra Hospital, 2<sup>nd</sup> Floor, Keriya Road, Nr. Railway Underbridge, Amreli.

### HIMMATNAGAR

Shankus Cancer Hospitals, 1<sup>st</sup> Floor, Ashwamegh Complex, New Civil Hospital, Hadiyol Road, Himmatnagar.

### VISNAGAR

Nutan General Hospital (S.K.), Visnagar.

### PALANPUR

Parikh Hospital (Mahajan Hospital), Near Delhi Gate, Baradpura, Palanpur.

### SURENDRANAGAR

- Krishna Hospital, Bus Station, Road, opp. M. P. Shah Arts & Science College, Ambedkar Nagar, Surendranagar, Gujarat 363001
- Life Care Super Speciality Hospital, Old Jct Rd, Opposite District Library, Vadipara, Surendranagar, Gujarat 363001

## OUR ASSOCIATIONS



Narayana Hospital,  
East Ahmedabad



Shaleen Cancer Hospital,  
Ahmedabad



Shankus Cancer Centre,  
Himmatnagar



Namostute Hospital,  
Gandhinagar



VIMS Hospital,  
Chandkheda

## ABOUT US

- Highly motivated team of Cancer Specialist; aim to deliver Protocol backed, Result oriented Cancer Surgical care to our patients.
- We aim to provide advanced, ethical, quality cancer care to our patients in most affordable and empathetic way.
- Looking after premiere organizations; committed to raise the bar of our working institutes.
- More than 30+ Years of cumulative experience in Onco-Surgery.

## EXPERT TEAM OF CANCER SURGEONS



**DR. RUSHIT  
DAVE**

MS, M.Ch. (GCRI)  
Consultant Cancer Surgeon



**DR. RONAK  
VYAS**

MS, M.Ch (GCRI), F.MAS  
Consultant Cancer Surgeon



**DR. MANISH  
SADHWANI**

MS, M.Ch (GCRI)  
Consultant Cancer Surgeon



**DR. SAMARTH  
DAVE**

M.Ch., Surgical Oncology  
Consultant Cancer Surgeon




**DR. PRANJALI  
BANTIA**

MS (BJMC), MCh (AIIMS Delhi)  
Consultant Cancer Surgeon

## CONTACT US

FOR APPOINTMENT CALL:  **+91 91044 62944**

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