



April 1<sup>st</sup> 2017

Dear Mr. [REDACTED]

Thank you for reaching out to Tata Memorial Centre (TMC) and nationally acclaimed experts of the National Cancer Grid (NCG). Navya is pleased to offer this online expert consultation service for assessing your treatment options.

We converted your case reports into a structured summary to be reviewed by a surgical, a medical oncologist, and a radiation oncologist in the Thoracic Disease Management Group at Tata Memorial Centre.

We asked the following question(s) on your behalf:

1. What is recommended at this time: surgery or chemotherapy or radiation therapy?
2. Is endobronchial ultrasound staging of lymph nodes recommended at this time?
3. Are additional diagnostic tests such as gene mutation tests recommended?

The TMC NCG Navya opinion is summarized as follows:

1. Endobronchial ultrasound (EBUS) (i.e. a technique that uses ultrasound along with bronchoscope to visualize airway wall and structures adjacent to it), or a mediastinoscopy (i.e. a procedure to visualize, examine, and biopsy lymph nodes to aid in determining the stage of lung cancer and potential surgical options), to evaluate the status mediastinal lymph nodes (i.e. to assess the presence or absence of cancer cells/lesion(s) in the mediastinal lymph node), is recommended at this time.
2. If results of EBUS/ mediastinoscopy confirms, there is no mediastinal lymph node metastasis (i.e. absence of cancer cell(s)/tumor(s) in mediastinal lymph nodes), then three cycles of neoadjuvant chemotherapy is recommended. Addition of Bevacizumab to the ongoing chemotherapy is recommended.
3. After three cycles of neoadjuvant chemotherapy as mentioned above, assessment for surgery is recommended.
4. Postoperative treatment including adjuvant chemotherapy and radiation therapy will depend on the results of the surgical pathology at that time.
5. If results of EBUS/ mediastinoscopy confirms, there is mediastinal lymph node metastasis (i.e. presence of cancer cell(s)/tumor(s) in mediastinal lymph nodes), then continuing the ongoing chemotherapy with Pemetrexed and Cisplatin is recommended at this time. Addition of Bevacizumab to the ongoing chemotherapy is recommended.
6. If the EBUS/mediastinoscopy confirms mediastinal lymph nodes metastasis, then surgery is not recommended.
7. Further diagnostic tests other than the EBUS/mediastinoscopy as mentioned above



are not required at this time

We hope that the expert opinion is helpful in determining the course of your treatment.

Please discuss this opinion with your treating oncologist(s).

Navya is pleased to provide the following information on treatment recommendation(s) per the National Comprehensive Cancer Network (NCCN), which lists the globally accepted guidelines for the treatment of cancers, and the Navya Experience Engine based on collective experience of experts at Tata Memorial Center and the National Cancer Grid.

Chemotherapy with Pemetrexed 500 mg/m<sup>2</sup> on day one, Cisplatin 75 mg/m<sup>2</sup> on day one, and Bevacizumab 15 mg/kg on day one for every three weeks for six cycles followed by Bevacizumab 15 mg/kg for every three weeks until disease progression or dose limiting toxicity is recommended.

After completing three cycles of the recommended chemotherapy with Pemetrexed, Cisplatin and Bevacizumab, assessment of response (i.e. whether the tumor(s)/lesion(s) in the body have decreased/not increased/increased) with ultrasound/CT scans with oral and iv contrast of the chest/abdomen/pelvis or PET CT scan of the whole body is recommended

Further, Navya is pleased to provide responses to your additional questions. An email with these responses will be sent shortly to your registered email address.

Please do not hesitate to write to us or call us with any questions.

Sincerely,

Gitika Srivastava



**CASE SUMMARY** Navya ID [REDACTED] **Expert Opinion ID** [REDACTED]

**Current Diagnosis:** ?Malignant Mesothelioma

**Age:** 62 Years Old

**Gender:** Male

**Smoking History:** No

**Complaint(s):** Rt side heaviness, back pain, intermittent fever, mild dyspnoea [March 2017]

**CT Thorax:** Moderate Rt pleural effusion causing secondary partial Rt lower lobe collapse; small Rt nodular pleural thickening & collection; tiny pre & paratracheal LNs [March 7th 2017]

**FDG PET- CT:** FDG avid 3.4 cm Rt apex nodular thickening (SUV Max 11.1)- ?metastatic vs primary; moderate Rt pleural effusion with Rt lower lobe collapse; FDG avid 1.5 cm Lt level II LN; FDG avid small Rt level IV LN- ?metastatic; FDG avid 0.8 cm prevascular LN; FDG avid b/l axillary LNs largest on Lt measuring 1.7 mm & Rt side measuring 2.4 cm; FDG avid few b/l external iliac LNs; Diffusely FDG avid axial & proximal appendicular skeleton [March 10th 2017]

**DICOM Link:** [Click here](#)

**Pleuroscopy:** Primary pleural pathology- ?tuberculous pleuritis vs metastatic malignancy [March 17th 2017]

**Diagnosis Made By:** Pleural Biopsy [March 17th 2017]

**Malignant Disease:** Carcinoma

**Cancer Grade:** Grade III

**Diagnosis Made By:** Pleural Biopsy [March 20th 2017]

**Malignant Disease:** Malignant Mesothelioma

**IHC- Positive:** Pancytokeratin, CK7, Vimentin, Calretinin, CK 5/6, WT 1

**IHC- Negative:** TTF 1, Napsin A, Ber- EP4

**EGFR:** Negative



**Excisional Biopsy- Left Axillary Lymph Nodes & Right Neck Lymph Nodes:** Reactive Follicular Hyperplasia [March 24th 2017]

**Cytology- Pleural Fluid:** Malignant effusion- ?Adenocarcinoma [March 7th 2017]

**PSA:** 1.99 [March 7th 2017]

**CEA:** 0.687 [March 8th 2017]

**CEA:** 1.01 [March 10th 2017]

**US Chest:** Rt sided minimal pleural effusion with underlying basal atelectasis, non aspirable [March 24th 2017]

**Clinical TNM Stage:** ?Stage III- T1 N2 ?M0

**Note:** Needs evaluation of FDG uptake in mediastinal nodes, and b/l external iliac LN

**Prior Chemotherapy #1:**

Timing	Chemotherapy	Treatment Start Date	Treatment End Date
Palliative/ Metastatic	Pemetrexed/Ci- Pemetrexed(500)d1/Cisplatin(75)d1 _q3w*1	March 29th 2017	Ongoing

**Bone Marrow (Hematologic) Function:** Adequate [March 7th 2017]

**Kidney (Renal) Function:** Adequate [March 28th 2017]

**Liver (Hepatic) Function:** Adequate [March 7th 2017]

**Heart (Cardiac) Function:** Not Available

**Functional Status- ECOG Score:** 0-1

**General Condition:** Patient is capable of all self-care activities, can clothe, bathe and eat on his own



Navya is a Cambridge, MA based company with offices in Bangalore, India. Navya is founded by graduates of Harvard University, MIT Sloan School of Management, and the Stanford School of Medicine. Navya's innovative and scalable decision making system is a technology powered solution for complex medical questions. Navya's software solutions are efficient engines to gather and synthesize individual goals of care, evidence specific to an individual medical case, and expert opinion, for evaluating treatment alternatives. Navya's goal is to assist in bringing clarity to the complexity of evaluating treatment alternatives. Navya's system collects the best available information and expertise from several worldwide sources relevant to a specific previously diagnosed medical case and assesses treatment decisions. For more information, please visit [www.navya.info](http://www.navya.info) or call +91 7022009550 or email [gitika@navya.care](mailto:gitika@navya.care)

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