



**ISBMT**

Indian Society for Blood & Marrow Transplantation

**BMT MASTER CLASS**

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# A case of chronic Lung GVHD

<sup>1</sup>

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SESSION 8  
CASE PRESENTATION NO.7

# BASELINE PRESENTATION

- A 22y old gentleman presented in July 2015 diagnosed as Ph+ve B ALL with additional del 9 in 71% cells (CSF – uninvolved, p190 transcript)

❑ Started on mBFM-90 protocol + Dasatinib 100 mg OD

## **Complications –**

1. Possible fungal pneumonia during Induction - received caspofungin for 7 days f/b posaconazole till January16
  2. CMV reactivation during phase 2 induction – received IV Ganciclovir
  3. Had grade 3 transaminitis during C1 of HDMTX
- BM response analysis - morphological and cytogenetic remission

## **TRANSPLANT DETAILS -**

- 6/6 HLA Match with sister (30y/F) <sup>2</sup>
- Conditioning regimen : CY-TBI ; GVHD prophylaxis : Cyclosporine + Methotrexate
- CD 34 Cells/kg body wt( $10^6$ /kg) - 4.34
- ❑ Pre BMT w/u was normal except for GFR of 54 ml/min (but by dual plasma sampling----68.92ml/min)
- ❑ PFTs were normal before HSCT

## Post transplant course –

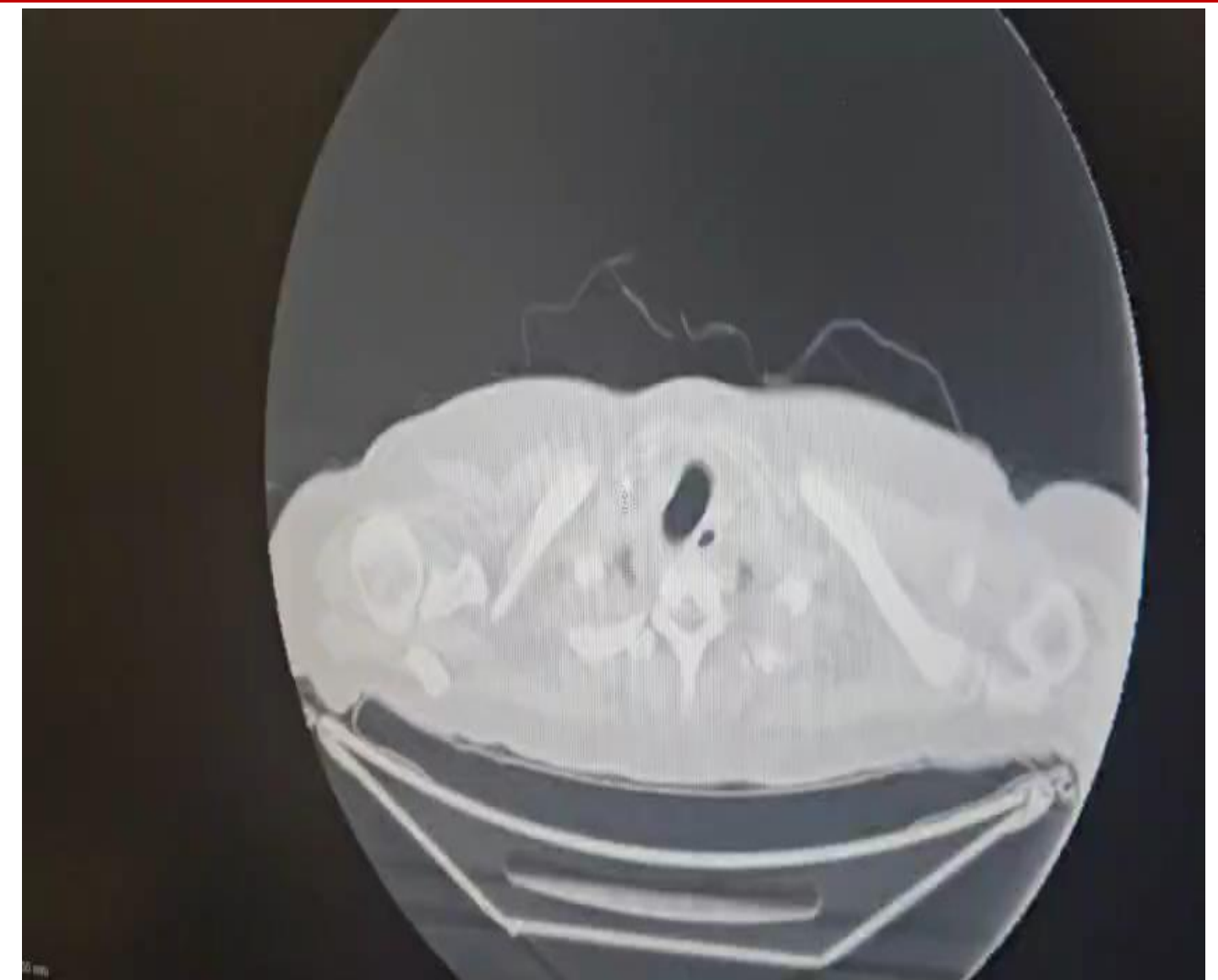
- ❑ Day +127 - Skin GVHD grade I and oral rash (oral GVHD) - treated with topical steroid and prednisolone gargles
- ❑ Day +167 - NCCT thorax was done for persistent fever spikes - bilateral multiple nodules with GGO's – s/o Fungal Pneumonia - caspofungin added
- ❑ Day +176 - NCCT thorax was repeated in v/o persistent fever spikes – s/o GGOs with halo sign and galactomannan was positive so inj Voriconazole was added
- ❑ Day+226 : NCCT showed significant shrinkage of previously seen nodules, IV Caspofungin was stopped and oral Voriconazole was continued
- ❑ Day +299 – Had sudden onset of breathlessness<sup>3</sup> after hickman line flushing
- ❑ NCCT thorax bilateral basal GGO with subpleural densities which was suggestive of lung GVHD. He was started on meropenem, teicoplanin, caspofungin, azithromycin, IV methylprednisolone 1mg/kg per day, imatinib 200mg OD on Day +299. As patient was on O2 , PFT was not done

# CLINICAL COURSE

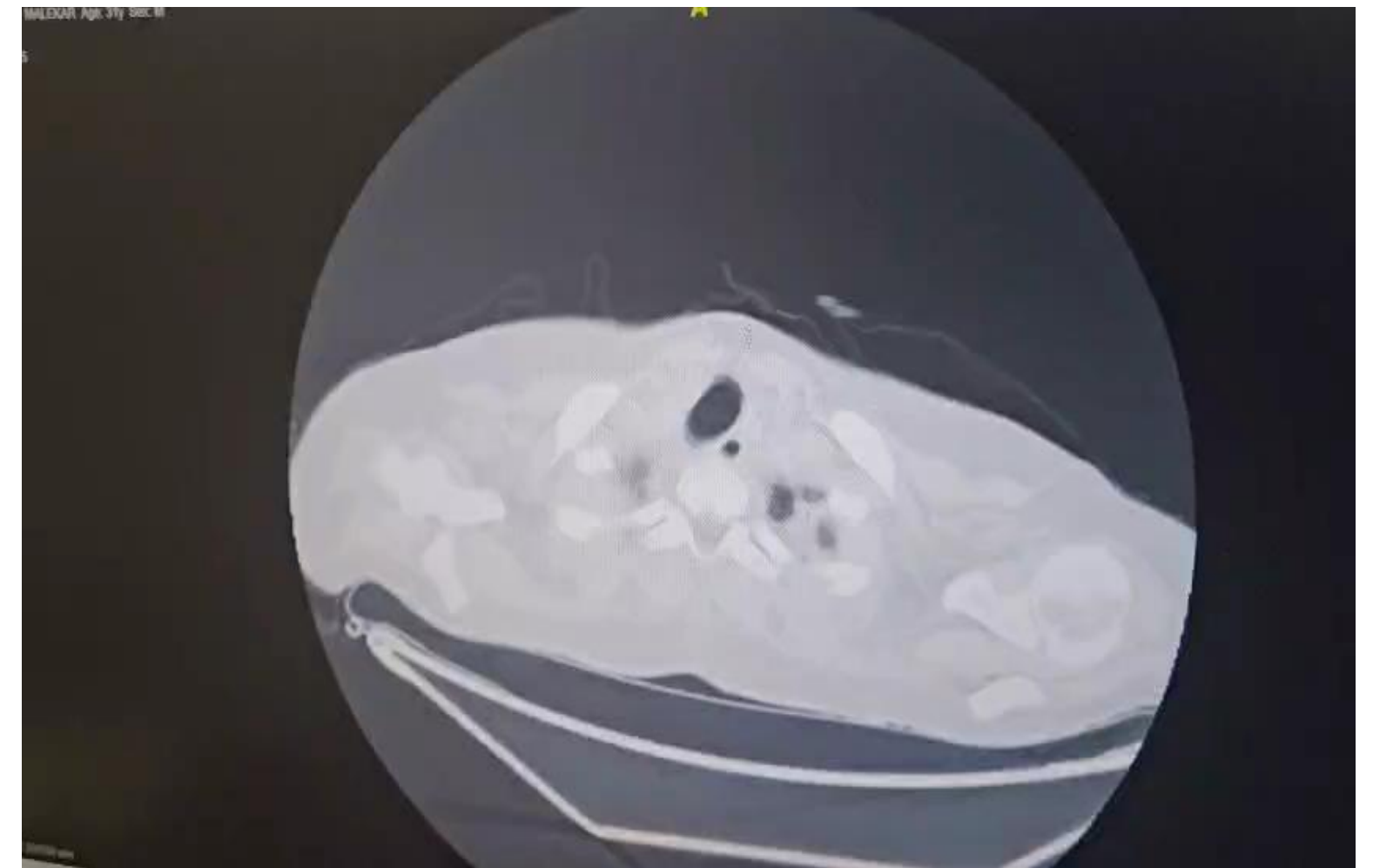
- ❑ He gradually improved and was changed to oral prednisolone that was tapered slowly
  - ❑ On day +547 – developed dyspnoea and Spo2 was 92% and NCCT thorax bilateral basal GGO with subpleural densities which was suggestive of lung GVHD.
  - ❑ He was started on Prednisolone 1 mg/kg in divided doses(35mg BD) and Imatinib dose was increased from 200mg to 300mg and as he improved steroids were tapered.
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- ❑ Patient was well between 2017 to 2014
  - ❑ Day 3225 - Had SOB and fever and spo2 was 50% at room air - started on HFNC support , antibiotics meropenem and amikacin with imatinib and nintedanib.
  - ❑ 2d echo - s/o increased PASP of 58 mmHg, so ambrisentan 2.5 mg OD was started.
  - ❑ Respiratory biofire – Rhino/enterovirus –oseltamivir added

# CLINICAL COURSE

- ❑ NCCT thorax - s/o increase in interlobular septal thickening , thickening of fissures with subpleural fibrosis and traction bronchiectasis bilaterally; methylprednisolone 40mg started
- ❑ Over next week, oxygen was tapered and discharged.
- ❑ Day 3264, FEV1 worsened to 30% ( reduced from 36% on 31.7.24) ,asymptomatic at that time ; nintedanib made to 100 mg BD.
- ❑ 2D echo showed PASP of 50 mmHg , ambrisentan made 7.5 mg OD
- ❑ Day 3355, patient had asymptomatic rise in CRP and later had symptoms of LRTI, so antibiotics ( meropenem +teicoplanin) were started
- ❑ Day 3381- patient was readmitted for excessive sleepiness and lethargy and was shown to have respiratory acidosis with CO2 retention (at admission P<sub>CO2</sub> 160---gradually decreasing to 95-110) with alternatively NIV and HFNC report



# CLINICAL COURSE



- After Pulmonology opinion – BiPAP support with PEEP 6 and methylprednisolone 40mg BD were added
- Day 3387 – started on meropenem and teicoplanin in v/o fever spikes
- Patient was discharged at request on day 3393 – as the family arranged BiPAP machine for homecare

# CLINICAL COURSE

## PFT TRENDS

