



# Management and outcomes in massive bilateral wilms tumors treated on AIIMS-WT-99 protocol

Deepak Mittal,

S. Agarwala, S. Bakshi, V. Bhatnagar, M. Srinivas,  
M. Bajpai, DK Gupta, VK Iyer, BK Mohanti, S.Thulkar

All India Institute of Medical Sciences

New Delhi, India



# Bilateral WT: Aim of study

To evaluate the outcome of children with bilateral Wilms tumors treated on AIIMS-WT-99 protocol



# Bilateral WT: Materials and Methods

- Prospective study
- All children with BWT registered from August 1999 to December 2010
- All patients treated on AIIMS-WT-99 PROTOCOL
  - Chemotherapy ACD+VCR+DOX 24 weeks
  - Neoadjuvant chemotherapy for 6-10 weeks
  - Surgery- Either nephrectomy (total or partial)/  
tumorectomy



# Bilateral WT: Materials and Methods

- Radiological re-evaluation was done after 6 weeks and 10 weeks of chemotherapy for resectability
- Nephron sparing surgery was done in all patients
- Post-op chemotherapy and radiotherapy for all patients
- Renal Dynamic Scan and GFR estimation was done in all patients pre and post surgery



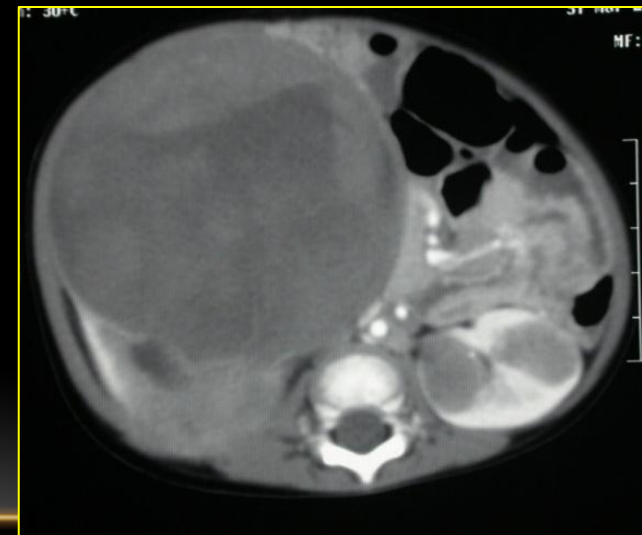
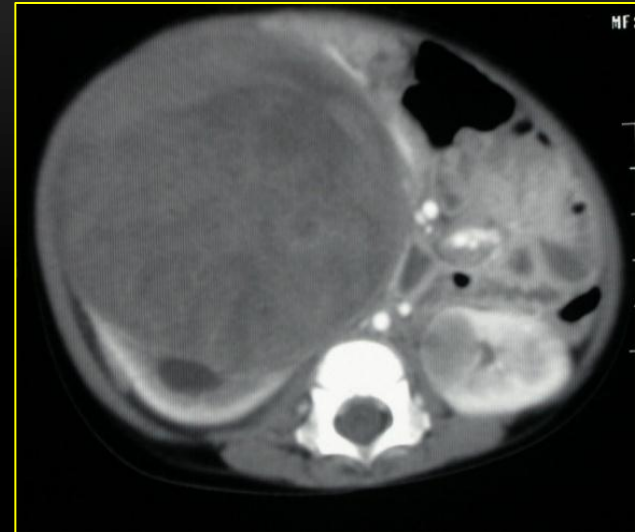
# Bilateral WT: Materials and Methods

- Kaplan-Meier survival estimates for
  - 5 year Overall survival (OS)
  - 5 year Event free survival (EFS)
    - ✓ Events defined as:-
      - Death
      - Recurrence

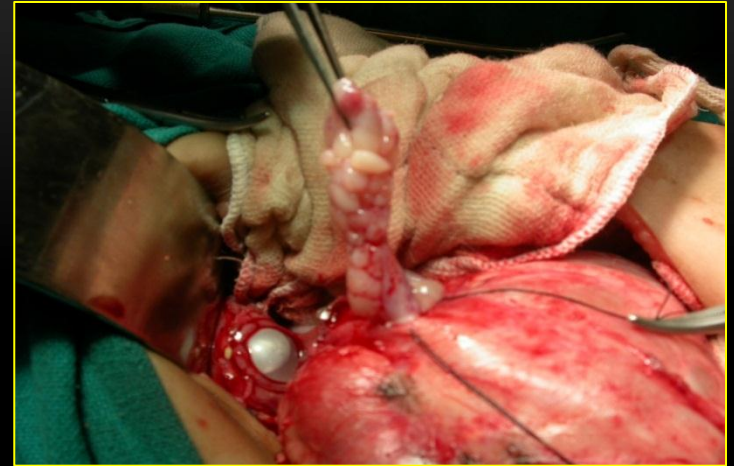
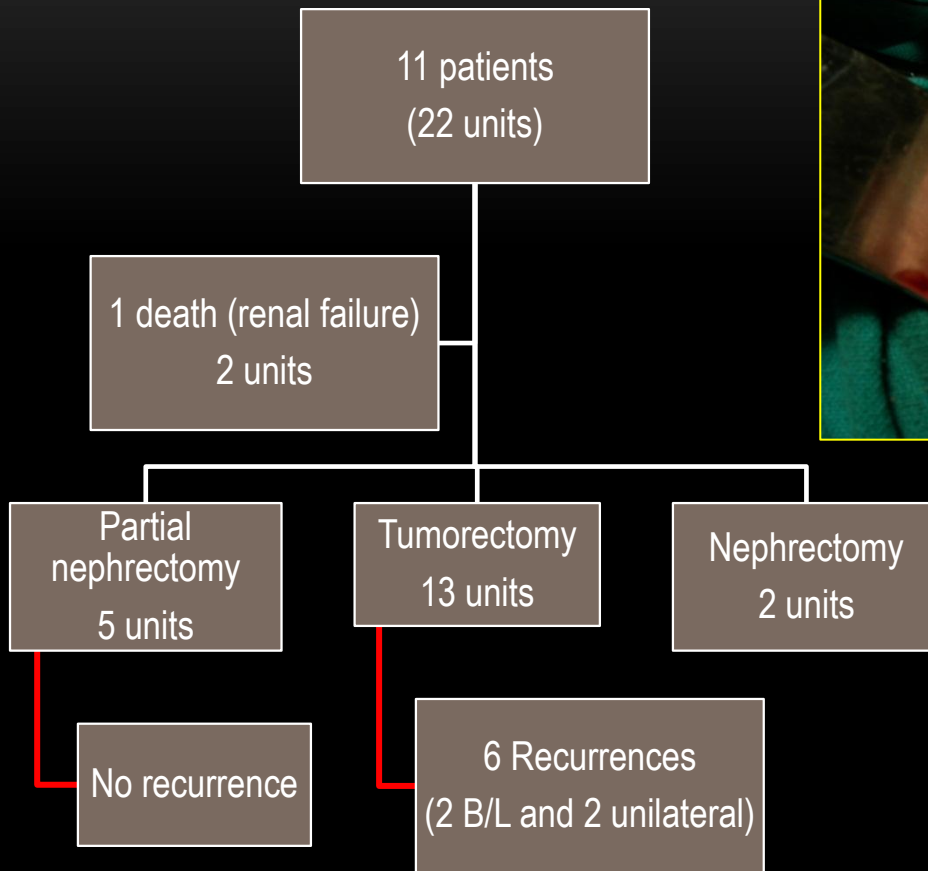


# Bilateral WT: Results

- Out of 178 cases of WT 11 (6.2%) had bilateral WT
- Age range of 6-30 months
- 8 Boys and 3 Girls
- Patient description
  - All were synchronous BWT
  - 10 patients: massive BWT of greater than 10 cm each side
  - 1 patient 12 cm and 3 cm
  - One patient of Denys Drash syndrome
  - One had lung metastasis at presentation that resolved after 6 weeks of pre-op chemotherapy

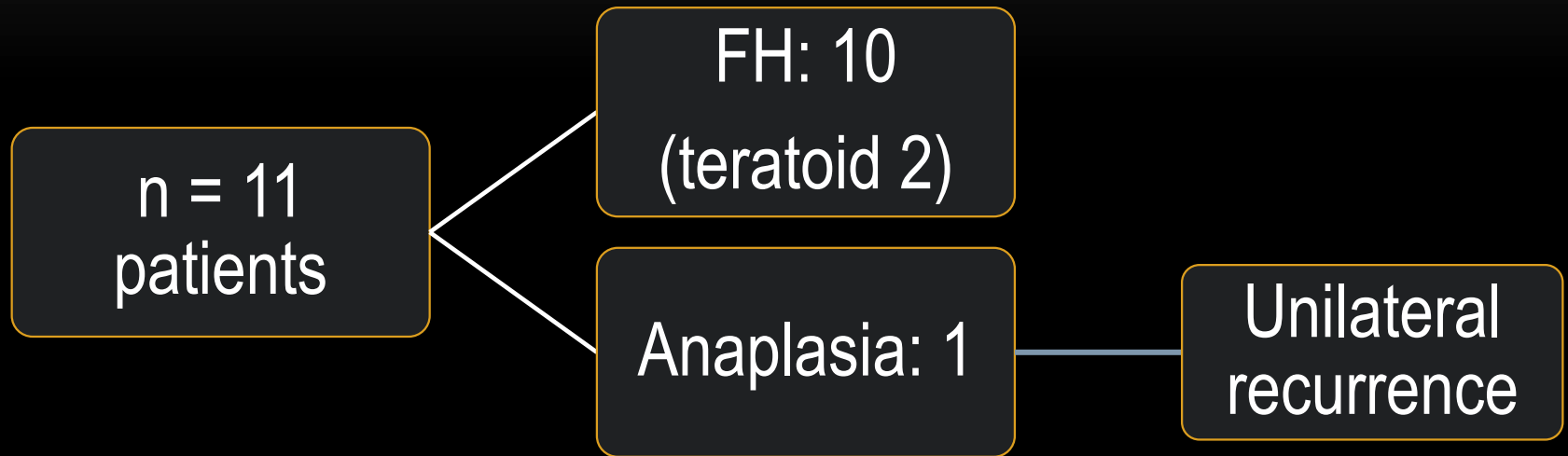


# Bilateral WT: Surgery done





# Bilateral WT: Histology

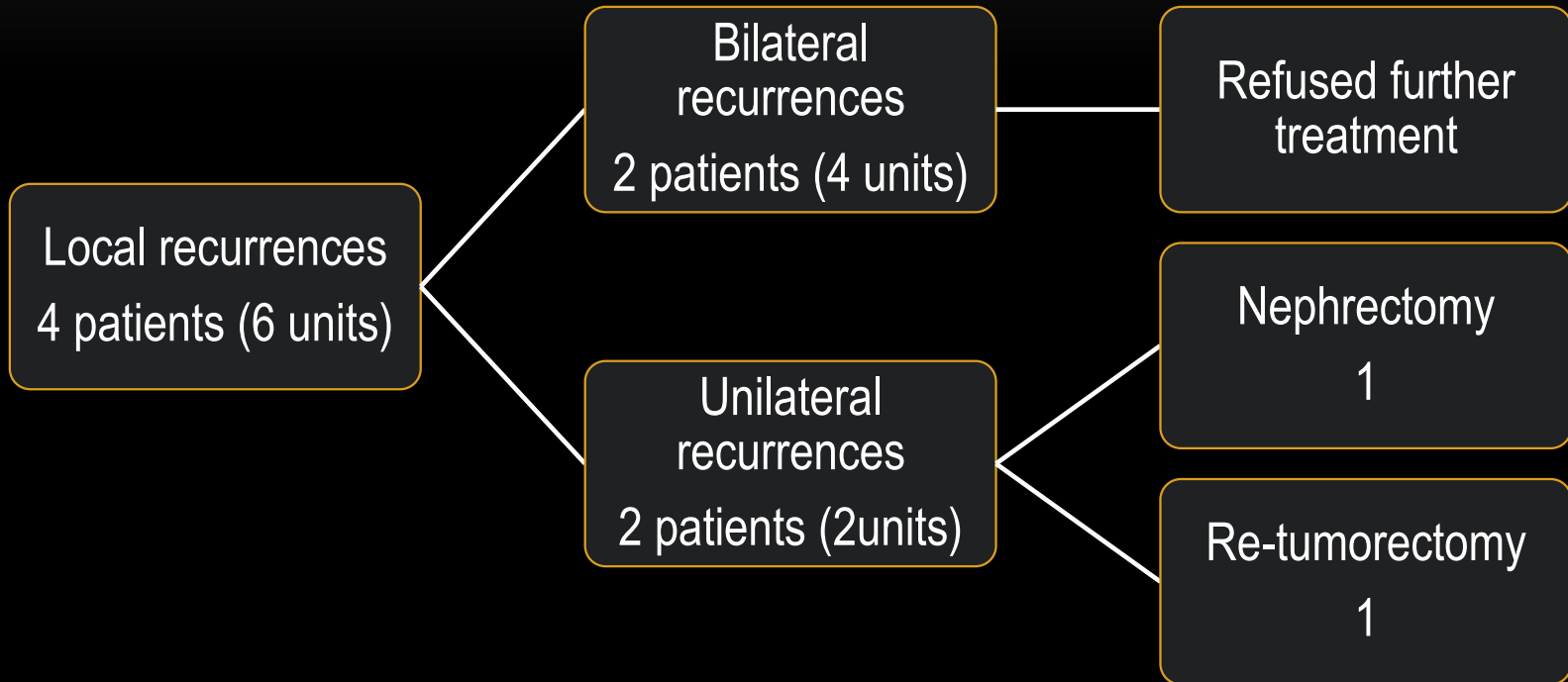


There were no cases of discordant pathology





# Bilateral WT: Recurrences



All recurrences in units following tumorectomy



# Bilateral WT: Results

- Tumor spill in 1 patient
  - Developed unilateral recurrence
- Lymph node positive in one patient
  - No recurrence
- Margin positive for disease in 2 patients
  - One patient developed bilateral recurrence



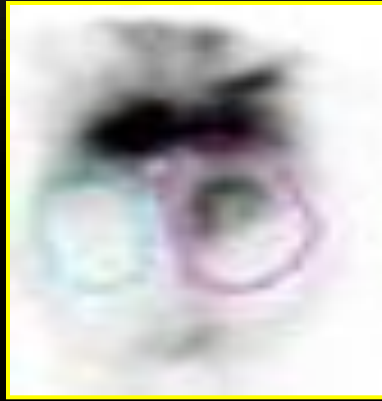
# Bilateral WT: Post-op complications

- One patient developed post-operative perinephric collection
  - Resolved with PCN drainage
- One patient had adhesive obstruction
  - Laparotomy and resection of gangrenous bowel with end to end anastamosis

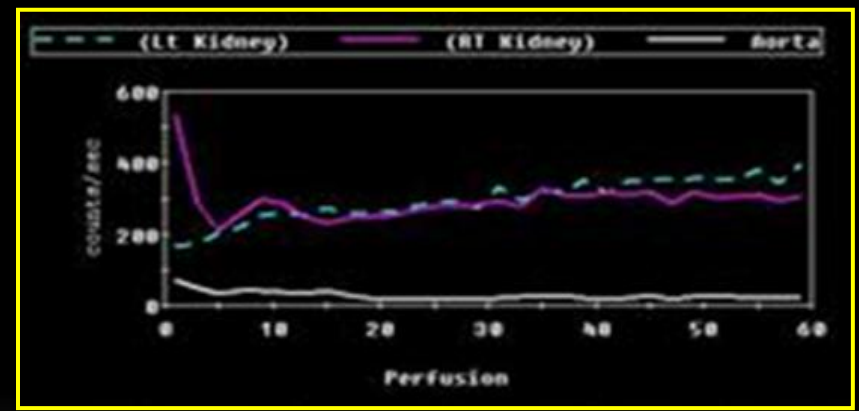
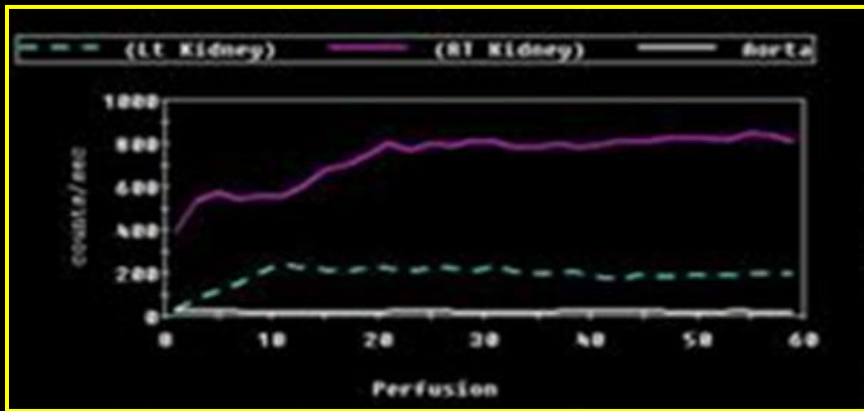
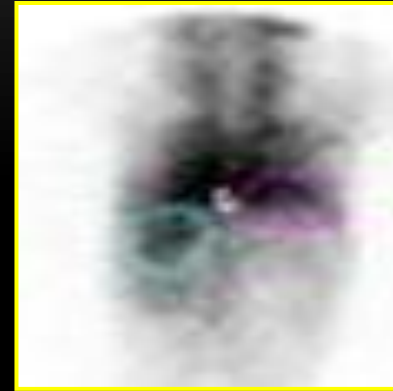


# Bilateral WT: Renal functions

Pre-op



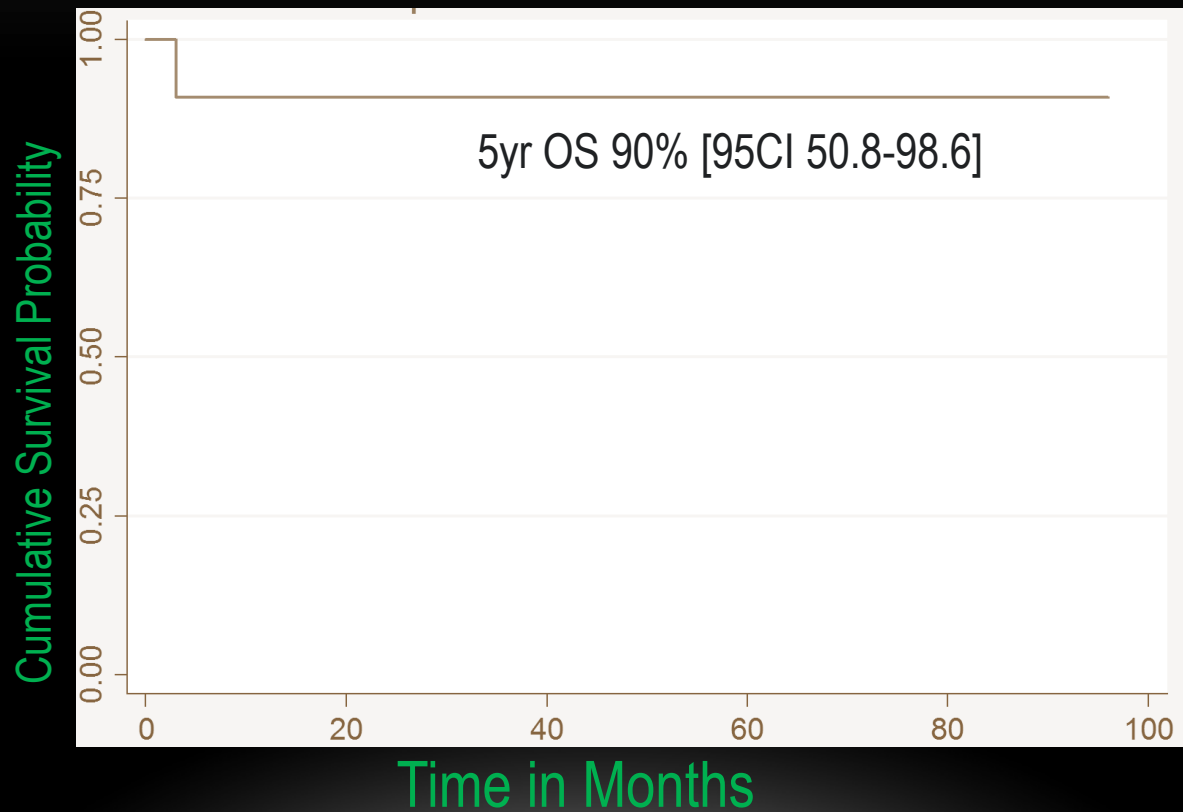
Post-op





# Bilateral WT: 5 year Overall survival

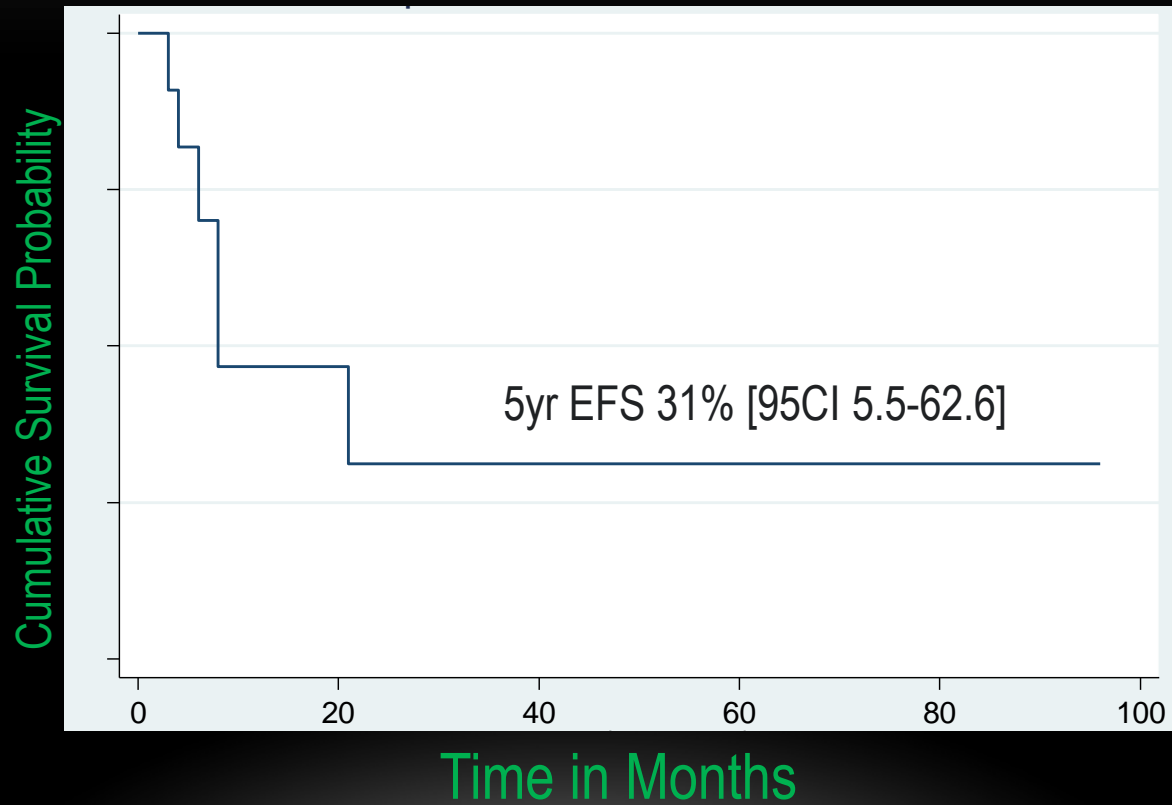
## Kaplan Meier Survival Curve(OS)





# Bilateral WT: 5 Year Event free survival

## Kaplan Meier Survival Curve(EFS)





# Massive Bilateral WT: Conclusions

- Massive BWT often respond poorly to pre-op chemotherapy
  - Usually not amenable to partial nephrectomy
  - Tumorectomy is often the only option
    - ✓ at the cost of high recurrence rate
- Functional recovery is feasible even when pre-op renal scan do not show any function
- Local recurrence rates are high so poor EFS
  - Parent acceptability for continuation of therapy after recurrence is low



THANK YOU