

# Current and Future COG Testicular Germ Cell Tumor Protocols

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Informed Consent and enrolling  
patients in COG protocols

# Open COG Testicular GCT Studies

- AGCT1531

- ◆ Low and standard risk patients

- AGCT1532

- ◆ Intermediate and poor risk patients

- A031102

- ◆ Relapsed and refractory patients

# AGCT1531

- Large study encompassing low and standard risk malignant GCT's at multiple sites
  - ◆ Surveillance for low risk
  - ◆ PEB/BEP versus Ceb/BEC for standard risk

# AGCT1531

- Surveillance for low risk patients
- All COG Stage 1 malignant GCT's
  - ◆ Any age
  - ◆ Recurrences can be enrolled in Standard Risk Arm
  - ◆ Study miRNA's as markers for relapse

# AGCT1531

- Compare cisplatin versus carboplatin (with etoposide and bleomycin) for standard risk patients
  - ◆ Pre-pubertal (< 11 years) Stage II-IV
  - ◆ Post-pubertal (11-24 years) Stage II or Stage III-IV with IGCCC good risk

# IGCCC Good Risk

- No non-pulmonary visceral metastases
- S0 or S1 tumor markers
  - ◆ AFP < 1000 ng/ml
  - ◆ HCG < 5000 IU/ml
  - ◆ LDH < 3 x ULN

# AGCT1531

- Compare cisplatin versus carboplatin (with etoposide and bleomycin) for standard risk patients
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# COG Surgical Guidelines - Orchiectomy

- Try to get CT pre-operatively
- Inguinal incision with vascular control
- Can extend incision onto scrotum
- Excisional biopsy is recommended if benign histology suspected
- Scrotal orchiectomy is OK(ish)
- Prior trans-scrotal biopsy – Stage II

# COG Surgical Guidelines – Retroperitoneum before chemo

- Lymph nodes  $\geq 2$  cm presumed (+)
- Lymph nodes  $< 1$  cm presumed (-)
- Lymph nodes 1-2 cm
  - ◆ Repeat imaging and if still  $\geq 1$  cm
    - ◆ Biopsy OR consider positive

# COG Surgical Guidelines – Retroperitoneum after chemo

- Mass > 1 cm with normal markers
  - ◆ Surgery
- Mass with elevated but NOT rising markers and complete resection possible
  - ◆ Surgery

# COG Surgical Guidelines – Retroperitoneum after chemo

- What RP surgery?
- < 11 years of age
  - ◆ Resection of mass only
- $\geq$  11 years of age
  - ◆ RPLND

# RP in Prepubertal Malignant GCT

- Positive nodes were always YST
- Residual mass after chemotherapy with normal AFP – necrosis (2 cases)

# COG Surgical Guidelines – Retroperitoneum after chemo

- What RP surgery?
- < 11 years of age
  - ◆ Resection of mass only
- $\geq$  11 years of age
  - ◆ RPLND

# AGCT1532

- Accelerated BEP versus standard BEP as first line for intermediate and poor risk GCT

# AGCT1532 Target Population

- 11 – 45 years of age
- Metastatic testis GCT with any of:
  - ◆ AFP > 1000 ng/ml
  - ◆ HCG > 5000 IU/L
  - ◆ LDH > 3.0 x ULN
  - ◆ Non-pulmonary visceral metastases



## A031102 – Primary Objective

- Overall survival for patients with relapsed or refractory GCT
- Conventional dose TIP versus High dose TI-CE regimen with autologous stem cell transplant

## A031102 – Inclusion criteria

- Male  $\geq$  14 years of age
- Germ Cell tumor – any site
- Prior first line chemotherapy
- Persistent/recurrent disease
  - ◆ Mass with biopsy
  - ◆ Mass with persistently elevated markers
  - ◆ Rising markers

# A031102 – Randomized to:

## **TIP**

- Paclitaxel
- Ifosfamide
- Cisplatin

## **TI-CE**

- Paclitaxel
- Ifosfamide
- High dose carboplatin and etoposide
- Autologous stem cell infusion

# General Cancer Protocols

- Establishing continuous cell lines/xenografts
- Pembrolizumab for refractory/relapses
- Long-term follow-up and health promotion

## Future studies

- Using tumor genetics and miRNA to stratify patients
- Continue to minimize morbidity for prepubertal patients and improve survival for high risk patients
- Increase AYA patient enrollment

# How to become the GU cancer surgeon

- Availability and affability
- Visibility
  - ◆ Tumor board
  - ◆ COG
- Lines