The results of treatment of children with metastatic Wilms’ tumor in an African setting

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Background

• The impact of liver metastases on survival is controversial in reports from developed countries
• No data are available from Africa, with different socio-economic circumstances
The surgeons constant battle against malnutrition, infectious disease, and HIV...
Aim

- To determine the prognostic significance of liver metastases in an African setting
- To audit treatment results
  - Survival: OS, EFS
  - Toxicity
  - Abandonment of treatment
Patients (1)

• 2002-2011
• 150 new patients with Wilms’ tumor
• 54 stage IV disease (abstract!)
• 45 stage IV disease at diagnosis
  – Including 7 with stage V and visceral metastases
• Site of metastasis and pretreatment biopsies were obtained in all
Patients (2)

- 20 males and 25 females
- Age: median 3.8 years (range 2 days - 12.8 yrs)
- FUP: median 15.4 mo (range 3 days - 5.7 yrs)
- Lost to FUP: 8 (17%) of whom
  - 5 were receiving palliative care only
  - 3 were in complete remission
- 2 pts died of chemotoxicity,
  2 died of complications after biopsy
Methods

• Neo-adjuvant chemo following SIOP principles in all
• Nutritional resuscitation in all
• TB-prophylaxis
• Anti-helminthics
• Anti retrovirals
• Anti hypertensives
• Postop treatment determined by local stage and histology
  – 25 pts received radiotherapy (local stage III in 15)
Co-morbidity

• hypertension \( n=25 \) (56%)
• clinically malnourished \( n=14 \) (31%)
• anti-helminthics \( n=36 \) (80%)
• TB prophylaxis \( n=34 \) (76%)
• Twenty-eight (62%) patients consented to HIV testing of whom 2 (7%) were positive and started on antiretroviral treatment
Metastases

- Liver metastases were present in 19 (42%):
  - Liver only \( n= 4 \ (9\%) \)
  - Liver + lung \( n=15 \ (33\%) \)
  - Lung only \( n=26 \ (58\%) \)

Literature - Wilms stage IV:
- Cape Town (2006) OS 54%
- SIOP/GPOH (2006) OS 76.3% (with liver mets OS 63%)
- NWTS (2009) OS 75% (FH)
Histology

- Favourable  \( n=33 \) (73%)
- Unfavourable  \( n=9 \)
- Undetermined  \( n=3 \)
- No influence of histology on outcome was evident
Liver metastases

- Persisted in 4/19 patients, 3 had a resection
Conclusions

• Isolated liver metastases from Wilms tumour are rare (9%)
• Liver metastases do not worsen the prognosis for children with Stage IV disease
• Despite the poor socio-economic circumstances of an African setting, survival was comparable to data from other centres, with acceptable toxicity and low abandonment of treatment (n=8)
• It remains crucial to establish a structured data collection system within sub-Saharan Africa