

Case reports:

1) Bilateral Wilms tumour in 6 months old boy

2) Severe gastroschisis with delayed surgical closure

Dr Kevin Teerovengadum

Pediatric and neonatal surgeon

Medical Update UOM Wed 29-01-2014

Case No 1 : Bilateral Wilms tumour in 6 months old boy

- Patient from Rodrigues, born on 16/08/2012
- Huge abdominal mass at age 6 months
- Brought to Mauritius where the diagnosis of bilateral nephroblastoma (stage 5) was made.
- Decision : palliative???

Multidisciplinary team decision

- Nephroblastoma : neo-adjuvant chemotherapy
- Child was not metastatic but considered too weak and unfit for CT
- While discussing pediatrician/ oncologist/ surgeon, acute intestinal obstruction -> emergency laparotomy



Histopathology

- Confirmation of diagnosis : mass of 15*11*8 cm, weighing 1.5 kg (6.5 kg baby)
- Monophasic nephroblastoma, no lymph node, renal vessels invasion
- Child remarkably better as from Day 2 of surgery

Decision to treat to cure

- - 6 months of chemotherapy
- - Partial nephrectomy done in nov 2013 in JNH , with the help of Pr Dewan, pediatric surgeon from Australia
- Margins are tumour-free; same histology but with microcalcifications because of prolonged CT
- Renal function is good – urea and serum creatinine within normal range
- Child thriving well with 2/3 of a kidney

What next?

- Infection of the chemoport, had to be removed
- Child completely asymptomatic
- CT scan chest+abdomen+pelvis 3 months after surgery – clear
- Follow protocol (very few cases of Bilat nephroblastoma – so protocols are divergent) or stop CT???

Follow protocol (very few cases of Bilat nephroblastoma – so protocols are not well established) or stop CT???

DD - 34A

Solid Tumors | Nephroblastoma (Wilms Tumor) 243

Stage III, IV Favourable Histology Wilms tumor, Stages I - IV
Clear cell sarcoma of Kidney
DD - 4A Protocol (Pulse Intensive treatment)

Dactinomycin	45 mcg/kg iv	weeks 0, 6, 12, 18, 24, 30, 36, 42, 48, 51, 54
Doxorubicin	30 mg/m ² iv	weeks 3, 9, 15, 21, 27, 33, 39, 45, 51
Vincristine	1.5 mg/m ² iv	weeks 1-10
Vincristine	2 mg/m ² iv	weeks 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54

XRT - Abdominal irradiation week 0

Reference: DM Green et al, J. Clin. Oncol. 1998, 16: 237-245

Case study No 2 : gastroschisis

- Baby
- born on 26.05.2012 at Queen Elizabeth Hospital, Rodrigues
- normal vaginal delivery. Pre-term: 33 weeks GA, Birth weight: 1.6 kg.
- No antenatal diagnosis: Patient was noted to suffer from gastroschisis at birth.
- Decision: Transfer neonate to Mauritius before or after surgery?



- Baby was born on Saturday morning and arrived to Mauritius on Sunday with severe electrolyte disbalance due to unavailability of IV line during transfer/ Sepsis/ Hypothermia.
- Urea: 13.6
- Sodium: 126
- Potassium: 7.0
- Calcium: 1.75
- Bowel loops were put in a colostomy bag and surgery was postponed for 24h.

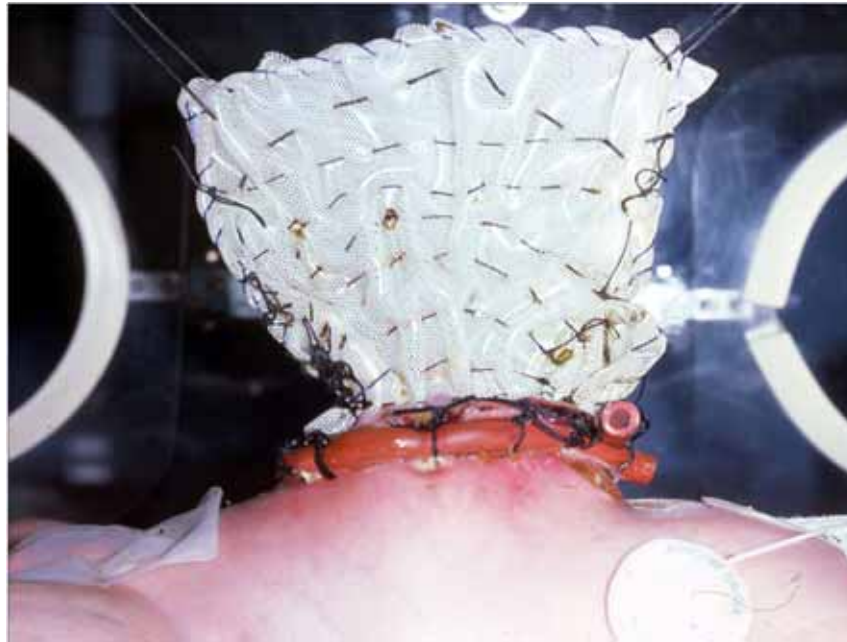
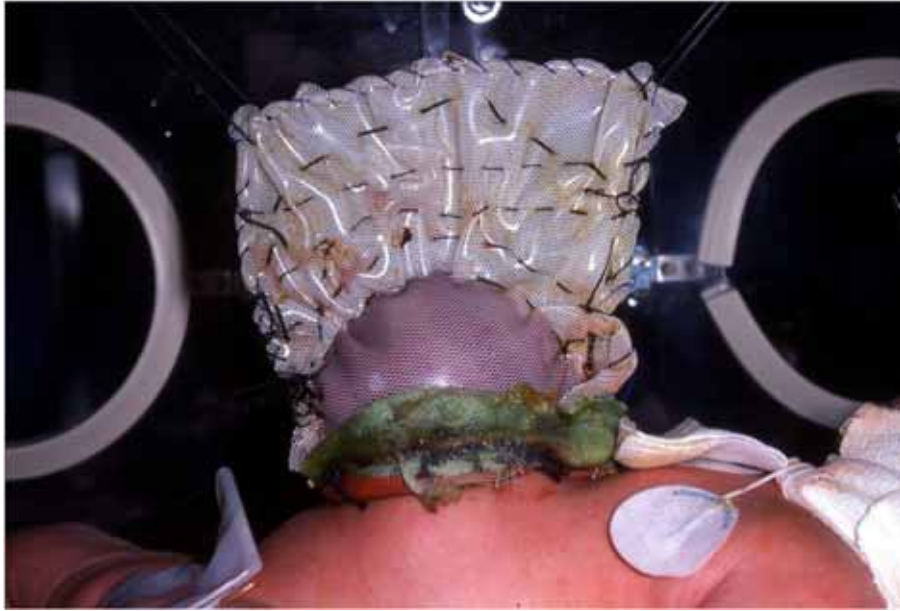


Laparoschisis associated with orthopedic problems
(bilateral CTEV
+ fracture of shaft of right femur)

Surgical Management

After appropriate fluid resuscitation, the laparotomy was repaired in several steps :

1. Reinsertion of intestinal loops + colostomy (28.05.12) at day 2 of life.
2. Staged closure by **Shuster's technique** (29.05.12) at day 3 of life.
3. Closure of abdomen(03.06.12) at day 9 of life.







- Baby stayed for 32 days in NICU.
- Patient was intubated and ventilated for 9 days.
- Several courses of antibiotics -
 - first Claforan and Amoxil
 - then Meropenem, Teicoplanin, Amikacin were administered.
- Feeding was started with expressed breast milk from donor mother at day 14 of life and was very progressively increased.
- First emission of meconium at day 19 of life.
- Patient received parenteral nutrition for 3 weeks.
- Patient was then transferred to the nursery for 2 weeks and to the ward with the mother

- baby was then breast-fed exclusively, off drip and picking up weight. Birth weight was 1.60 kg and discharge weight 2.20 kg.
- Mother and child are back to Rodrigues, recent news by phone are good.
- Follow-up in Rodrigues : general surgeon, pediatrician, orthopaedic surgeon