surgical perspectives in sarcoma management

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introduction

• diagnosis
• interventions for cure & palliation
• who should perform surgery
• team dynamics and MDT
problems with diagnosis

• most cases will present to a surgical unit
• rare & can occur in varied sites
• frequently obvious, but occasionally very unexpected!!
impact of diagnostic errors

- delayed diagnosis
- inadequate initial operation
- incorrect surgical procedure

“...mistakes are as serious as the results they cause....”
real diagnosis = dermatofibrosarcoma protuberans (DFSP)
Initial diagnosis = buttock abscess

real diagnosis = high grade sarcoma NOS
initial diagnosis = sarcoma

real diagnosis = metastatic melanoma
approach to a soft tissue mass

biopsy and image

• symptomatic
• enlarging
• >5cm
• present > 4 weeks
• deep
imaging: MRI vs CT
information from biopsy

- is it a sarcoma?
- what is the grade?
- what is the histological type?
surgery in sarcoma management

• surgery
• chemotherapy
• radiotherapy
• neoadjuvant strategies
• other

complete resection is the most critical step

-ve margin is NB surgical variable
surgical priorities

- curative
- palliative

Resectability:
- mobility
- skin cover
- neurovascular bundle
- bone involvement
- anatomical site

- neoadjuvant Rx
- amputation
- inoperable
- debulking
neoadjuvant therapy?

- small & easily (low grade) → operate
- big & nasty (high grade) → neoadjuvant Rx

- radiotherapy
- chemotherapy
- chemoradiotherapy
principles of sarcoma surgery

- wide local excision
- tumour, pseudocapsule, and site of tumour violation
- negative margins
- preservation of function
- longitudinal incisions
- drain site within radioRx field
how wide is wide?

- no trial data
- excise >1cm
- <1cm OK if within “natural barrier to spread”
  - fascia
  - joint capsule
  - tendon
  - epineurium
  - vascular sheath
further surgical considerations: extensive reconstructions

- skin cover: occasional
- bone: ↑ frequency
- nerve: uncommon
- Vascular: uncommon
re-operation for +ve margins

Inadequate operation done elsewhere

YES

primary surgery done within established surgical oncology unit

NO
re-operation for +ve margins

depth = no

superficial = yes
will sarcomas be cured by more and more aggressive surgery?

“...surgery can only cure those sarcomas that do not have innate capacity to metastasise...”
role of surgery in palliation

“...relief of symptoms and suffering caused by cancer and other life-threatening diseases. ...improves the quality of life, but does not cure the disease....”

• can you palliate a patient who is asymptomatic???

• is the palliative Rx better or worse than the disease??

• prolonging life is NOT palliation, it is often the very opposite
palliative surgery

- not uncommon in hindsight
- occasionally deliberate
  - resective vs debulking
  - metastasectomy

weigh up risks and impact of surgery versus natural progression of disease
sometimes possible?
sometimes clearly impossible
surgery = cure or palliation?

“...in the world of surgical oncology biology is king selection is queen technical manoeuvres are the prince and princess...’

“....technical wizardry does not overcome biological behaviour.... “

Blake Cady, MD
who should perform sarcoma surgery?
what skills does a sarcoma surgeon require?

- general surgery vs orthopedics
- grasp of oncology principles
- experienced in different anatomical sites
- courageous (or foolish enough….)
  - to take on the procedures
- temperance to be realistic
- team player
- insecure enough to ask for & heed to advice

not ad hoc responsibility
what facilities does a sarcoma hospital need?

• referral network
• multidisciplinary skills
  – general surgery/ orthopedics/ plastics and reconstructive/ thoracics
  – anaesthetics
  – oncology and radiotherapy
  – physio/ OT/ rehab network
  – social work/ counselling/ palliative services
• radiology/ ICU/ blood bank/ pathology on site
• University/ research ethos
team dynamics and MDT’s
MDT = better outcomes

• surgical perspective
  – public scrutiny of surgery NB
  – public scrutiny of pathology outcomes
  – Justify your decisions
  – Consider alternative Rx options
  – Consider alternative surgeons!!!

• share the burden of care

• planning and strategies, define the burden of disease, lobby for resources

• forum for audits, research, innovation
surgical perspectives in the management of sarcomas

- get diagnosis right ASAP
- do the correct operation first time
- function within a MDT