





18th Multidisciplinary Management of Cancers: A Case-based Approach

Sarcoma Tumor Board

Rosanna Wustrack, Orthopedic Oncology, UCSF





Raffi Avedian, Orthopedic Oncology, Stanford University
 Kristen Ganjoo, Medical Oncology, Stanford University
 Lynn Million, Radiation Oncology, Stanford University
 Ming-Gui Pan, Medical Oncology, Permanente Medical Group
 Ross Okimoto, Medical Oncology, UCSF
 Thierry Jahan, Medical Oncology, UCSF
 Robert Canter, Surgical Oncology, UC Davis
 Steven Thorpe, Orthopedic Oncology, UC Davis

18th Multidisciplinary Management of Cancers: A Case-based Approach



Case 1 – Sarcoma Tumor Board





- 29M with insidious onset of left lower leg pain localizing over the tibial tubercle. Progressed to requiring Advil and knee sleeve. Notable for moderate night pain.
- PMH, FH and ROS negative
- Exam notable for a slightly enlarged tibial tubercle, warm and tender to palpation. Pain beyond 110° of flexion. Mild limp.

18th Multidisciplinary Management of Cancers: A Case-based Approach

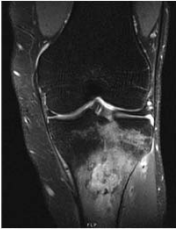
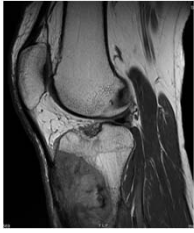
Case 1 – Sarcoma Tumor Board








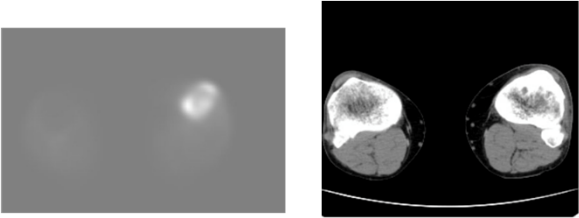
18th Multidisciplinary Management of Cancers: A Case-based Approach





Case 1 – Sarcoma Tumor Board

18th Multidisciplinary Management of Cancers: A Case-based Approach

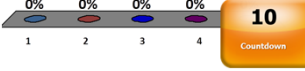











18th Multidisciplinary Management of Cancers: A Case-based Approach

Question: What do you recommend next?

1. Incisional biopsy femur tumor
2. Image-guided biopsy femur tumor







18th Multidisciplinary Management of Cancers: A Case-based Approach

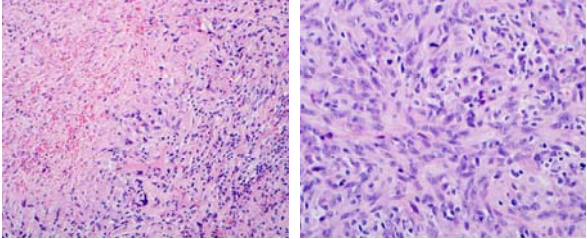
Case 1 – Sarcoma Tumor Board





- CT guided FNA:
 - Atypical cells with enlarged and bizarre nucleoli
 - Background with necrosis
 - “Although the findings raise the possibility of infection, the morphology could represent a malignant process such as sarcoma.”
- Open Incisional Biopsy:
 - Pleomorphic sarcoma, grade 3/3

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 1 – Sarcoma Tumor Board



18th Multidisciplinary Management of Cancers: A Case-based Approach

Question: What do you recommend next?

1. Wide resection
2. Neoadjuvant radiotherapy
3. Neoadjuvant chemotherapy
4. Combined modality neoadjuvant therapy

0% 0% 0% 0% 10 Countdown

1 2 3 4

Stanford Cancer Institute UC DAVIS Comprehensive Cancer Center UCSF Helen Diller Family Comprehensive Cancer Center ASSOCIATION OF NORTHERN CALIFORNIA ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach

Question: What do you recommend for the neoadjuvant chemotherapy regimen?

1. MAP chemotherapy per standard COG osteosarcoma protocols
2. Doxorubicin, ifosfamide, mesna
3. Cisplatin and Doxorubicin
4. Other regimen

0% 0% 0% 0% 10 Countdown

1 2 3 4

Stanford Cancer Institute UC DAVIS Comprehensive Cancer Center UCSF Helen Diller Family Comprehensive Cancer Center ASSOCIATION OF NORTHERN CALIFORNIA ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 1 – Sarcoma Tumor Board

- Neoadjuvant chemotherapy with Doxorubicin, Ifosfamide
- Completed 3 cycles of neoadjuvant chemotherapy

0% 0% 0% 0% 10 Countdown

1 2 3 4

Stanford Cancer Institute UC DAVIS Comprehensive Cancer Center UCSF Helen Diller Family Comprehensive Cancer Center ASSOCIATION OF NORTHERN CALIFORNIA ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 1 – Sarcoma Tumor Board

- Wide resection proximal tibia
- Reconstruction with Compress proximal tibia, rotating platform total knee replacement
- Gastroc flap


0% 0% 0% 0% 10 Countdown





1 2 3 4

Stanford Cancer Institute UC DAVIS Comprehensive Cancer Center UCSF Helen Diller Family Comprehensive Cancer Center ASSOCIATION OF NORTHERN CALIFORNIA ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 1 – Sarcoma Tumor Board







18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 1 – Sarcoma Tumor Board

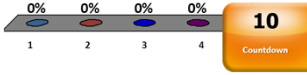
- Pathology:
 - Osteosarcoma
 - "Although both viable sarcoma and lace-like osteoid are identified, they are not present in association. Thus, an unequivocal diagnosis of osteosarcoma cannot be made. Nevertheless, the findings do support a treated osteosarcoma in which the osteogenic focus is very small and has responded to treatment."
 - 91% necrosis
 - Negative margins










18th Multidisciplinary Management of Cancers: A Case-based Approach

Question: What do you recommend next?

1. Continue doxo/ifosfamide chemotherapy 3 more cycles
2. Alternative chemotherapy
3. Neoadjuvant radiotherapy







18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 1 – Sarcoma Tumor Board


- Continued for 3 more cycles of doxorubicin/ifosfamide
- FU: NED 11mo post-treatment
- Function
 - 45° extensor lag
 - ROM is 0-95° passively, 45-95° actively
 - 4/5 EHL, TA strength
 - Performs ADLs without difficulty
 - + limp, no assistive devices

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 1 – Sarcoma Tumor Board


- Discussion/ Questions?
- End of Case 1



18th Multidisciplinary Management of Cancers: A Case-based Approach



Case 2 – Sarcoma Tumor Board

- Presentation 9/2011
- 56M previously healthy presented with a large left acetabular mass
 - 3-4 years of left groin pain, intermittent in nature
 - Worsening pain x 3mo; 1mo h/o LLE swelling
 - US revealed iliac DVT and large pelvic mass
- PMH/PSH/FHx/ROS: unremarkable
- PE:



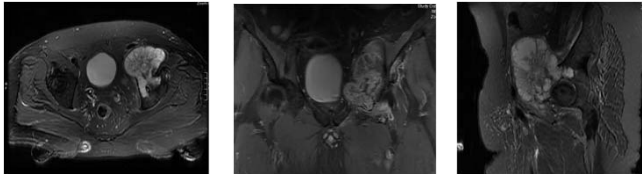

18th Multidisciplinary Management of Cancers: A Case-based Approach

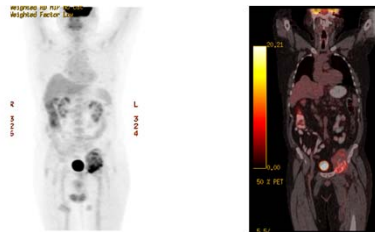
Case 2 – Sarcoma Tumor Board

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board

18th Multidisciplinary Management of Cancers: A Case-based Approach**Case 2 – Sarcoma Tumor Board**

Stanford Cancer Institute
UCDAVIS COMPREHENSIVE CANCER CENTER
UCSF Helen Diller Family Comprehensive Cancer Center
ASSOCIATION OF NORTHERN CALIFORNIA ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach**Case 2 – Sarcoma Tumor Board**

- 56M with a large left acetabular mass with medial soft tissue component (likely chondroid)
- 7mm RML lesion with associated hypermetabolism
- What further work-up would you like?

Stanford Cancer Institute
UCDAVIS COMPREHENSIVE CANCER CENTER
UCSF Helen Diller Family Comprehensive Cancer Center
ASSOCIATION OF NORTHERN CALIFORNIA ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach**Case 2 – Sarcoma Tumor Board**

- 9/26/2011: Wedge resection RML nodule →
 - Intraparenchymal lymph node, no tumor
- 10/24/2011: CT guided biopsy left acetabular lesion →
 - Low grade hyaline cartilage tumor with myxoid change and minimal atypia
 - "Differential diagnosis includes enchondroma versus grade 1 chondrosarcoma. Given the soft tissue involvement we have classified this as a grade 1 chondrosarcoma"

Stanford Cancer Institute
UCDAVIS COMPREHENSIVE CANCER CENTER
UCSF Helen Diller Family Comprehensive Cancer Center
ASSOCIATION OF NORTHERN CALIFORNIA ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach**Case 2 – Sarcoma Tumor Board**


- 56M with left acetabular grade 1 chondrosarcoma, no e/o metastatic disease
- What is your feeling about this diagnosis?
- What is your surgical approach?

Stanford Cancer Institute
UCDAVIS COMPREHENSIVE CANCER CENTER
UCSF Helen Diller Family Comprehensive Cancer Center
ASSOCIATION OF NORTHERN CALIFORNIA ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board



- 11/28/2011 Operative Report
 - “..very long discussion with the patient and his wife ... formal external hemipelvectomy, internal hemipelvectomy with reconstruction, internal hemipelvectomy without reconstruction, removal of intrapelvic portion with or without staged total hip replacement”



18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board



- 11/28/2011 Operative Report
 - “..after much discussion the patient decided to proceed with potential 2-stage operation, hoping that the entire tumor remained grade 1.... He also understood he was at risk of a local recurrence requiring amputation.”

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board

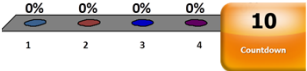

- 11/28/2011 Pathology Report:
 - Grade 2 Chondrosarcoma, no evidence of dedifferentiation

18th Multidisciplinary Management of Cancers: A Case-based Approach

Question: What do you recommend next?

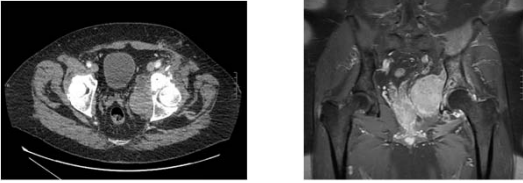
- Repeat surgery given higher grade tumor
- Close surveillance of the pelvis only
- Close surveillance of chest and pelvis
- Adjuvant treatment with radiation and/or chemotherapy








18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board

- Q2mo radiographs
- 4 months post-operative patient complained of increasing pain







18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board

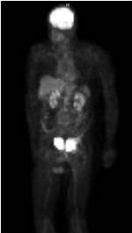
- Clear local recurrence
- What restaging studies do you recommend?





18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board

- Clear local recurrence
- What restaging studies do you recommend?



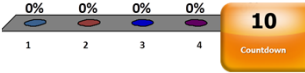
PET-CT scan 4/2012:
SUV 10.5 left pelvic sidewall mass
No metastatic disease










18th Multidisciplinary Management of Cancers: A Case-based Approach

Question: What do you recommend next?

1. Biopsy left medial pelvic sidewall mass
2. Wide re-resection
3. External hemipelvectomy
4. Initiate treatment with radiation and/or chemotherapy followed by resection



18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board

- 4/30/2012: Exploratory laparotomy, resection aborted in favor of external hemipelvectomy
- 5/14/2012: Planned external hemipelvectomy, aborted 2/2 urothelial mass incidentally noted on ureteral stent placement
 - Low grade papillary urothelial carcinoma resected at time of cystoscopy
- 6/4/2012: External hemipelvectomy
 - Pathology: Dedifferentiated chondrosarcoma; negative margins, 2.5cm bony margin, 0.5cm soft tissue margin



18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board

- Continued surveillance q3mo scans
- New 2.2 x 1.7 RLL pleural based lesion involving right 6-8 ribs



18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board

- 12/17/2012: Wide resection of right 6-9 ribs, RLL lobectomy, RML wedge resection, resection of diaphragm nodule
 - Pathology: metastatic dedifferentiated chondrosarcoma, negative margins; diaphragm nodule negative for tumor



18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board


- 1/25/2013 CT C/A/P: two hepatic lesion, increased in size 3.8 x 2cm, 2 x 1.3cm



18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board

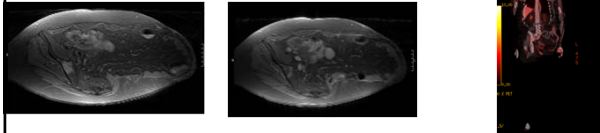

- Plan for methotrexate plus cisplatin/doxorubicin
- 2/20/2013 started with cis/doxorubicin due to large pleural effusion
- Completed 3 cycles, but had difficulty with 3rd cycle



18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board

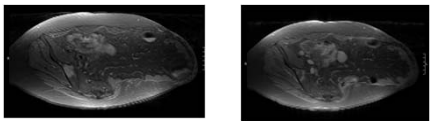

- Meanwhile 12/2012 demonstrated a right iliac bone lesion
- 4/2013 PET-CT showed mixed response: decrease in size and avidity in liver, increased size and avidity in ilium

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board


- CT guided biopsy confirms metastatic dedifferentiated CHSA
- TB discussion recommends radiation;
 - What do you recommend for radiation dose, modality?

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board

- 58M with metastatic chondrosarcoma s/p
 - Left external hemipelvectomy
 - Right chest wall resection, RLL lobectomy, RML wedge resection
 - 3 cycles of cisplatin/doxorubicin; response in liver
 - Radiation to right iliac lesion
- Optimal surveillance?
 - Types of scans?
 - Interval?



18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board

- 5/2013-9/2015
 - Q3mo scans; combination of CT C/A/P, MRI pelvis, PET scans
 - Lungs stable
 - Liver stable
 - Iliac lesion stable on PET, some increase in activity on MRI; no pain
 - **Right adrenal nodules slowly enlarging**
- 9/2015: Right adrenalectomy



18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board

- **1/18/2018; 75mo AWD**
- New scans reveal increased hypermetabolism and volume of right iliac metastasis (no change in symptoms)
- New liver lesion
- What options do we have for this patient?



18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board

- Questions?
- End of Case 2



18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 3 – Sarcoma Tumor Board

- 40M with 6 week history of a soft tissue tumor left ankle that progressed rapidly and broke through the skin.
 - Admitted for expedited w/u of fungating left ankle mass with superinfection, noted to have new large left groin mass
- No past medical or surgical history
- Exam: 10cm fungating mass over left medial ankle/foot; 6cm firm mass within the left groin



18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 3 – Sarcoma Tumor Board

Stanford Cancer Institute
UCDAVIS COMPREHENSIVE CANCER CENTER
UCSF Helen Diller Family Comprehensive Cancer Center
ASSOCIATION OF NORTHERN CALIFORNIA ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 3 – Sarcoma Tumor Board

Stanford Cancer Institute
UCDAVIS COMPREHENSIVE CANCER CENTER
UCSF Helen Diller Family Comprehensive Cancer Center
ASSOCIATION OF NORTHERN CALIFORNIA ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 3 – Sarcoma Tumor Board

- Biopsy reviewed from referring hospital: sarcoma

Stanford Cancer Institute
UCDAVIS COMPREHENSIVE CANCER CENTER
UCSF Helen Diller Family Comprehensive Cancer Center
ASSOCIATION OF NORTHERN CALIFORNIA ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 3 – Sarcoma Tumor Board

Rate of Lymph Node Positivity

Cancer Type	Rate of Lymph Node Positivity (%)
Lip	~2
Embryonal rhabd	~12
LMS	~3
MPNST	~2
Angiosarcoma	~12
Synovial	~1
Epithelial	~15
Clear Cell Sarcoma	~20

Stanford Cancer Institute
UCDAVIS COMPREHENSIVE CANCER CENTER
UCSF Helen Diller Family Comprehensive Cancer Center
ASSOCIATION OF NORTHERN CALIFORNIA ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach

Question: What do you recommend next?

1. Palliative amputation
2. Neoadjuvant radiotherapy
3. Neoadjuvant chemotherapy
4. Combined modality neoadjuvant therapy
5. Palliative amputation and resection of groin mass

0% 0% 0% 0%
1 2 3 4
10
Countdown

Stanford
Cancer Institute

UC DAVIS
COMPREHENSIVE
CANCER CENTER


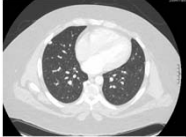
UCSF Helen Diller Family
Comprehensive
Cancer Center

ASSOCIATION OF
NORTHERN CALIFORNIA
ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 3 – Sarcoma Tumor Board

- Palliative below the knee amputation and resection of left groin mass
- PET-CT scan showed active sites of disease
 - Left iliac chain lymph nodes
 - Lung nodule

Stanford
Cancer Institute

UC DAVIS
COMPREHENSIVE
CANCER CENTER


UCSF Helen Diller Family
Comprehensive
Cancer Center

ASSOCIATION OF
NORTHERN CALIFORNIA
ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 3 – Sarcoma Tumor Board

- Short interval CT chest demonstrates enlargement of nodule as well as new lung nodules



Stanford
Cancer Institute

UC DAVIS
COMPREHENSIVE
CANCER CENTER

UCSF Helen Diller Family
Comprehensive
Cancer Center

ASSOCIATION OF
NORTHERN CALIFORNIA
ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 3 – Sarcoma Tumor Board

Questions

1) Best systemic treatment option?

Discussion?

Stanford
Cancer Institute

UC DAVIS
COMPREHENSIVE
CANCER CENTER

UCSF Helen Diller Family
Comprehensive
Cancer Center

ASSOCIATION OF
NORTHERN CALIFORNIA
ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach**Case 3 – Sarcoma Tumor Board**

Stanford Cancer Institute
UC DAVIS COMPREHENSIVE CANCER CENTER
UCSF Helen Diller Family Comprehensive Cancer Center
ASSOCIATION OF NORTHERN CALIFORNIA ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach**Case 3 – Sarcoma Tumor Board**

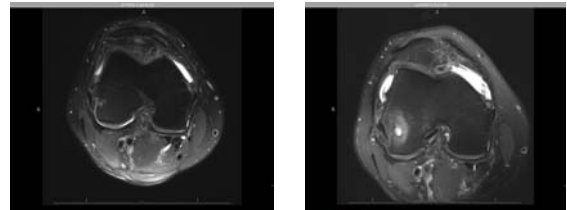
- Discussion/ Questions?
- End of Case 3

Stanford Cancer Institute
UC DAVIS COMPREHENSIVE CANCER CENTER
UCSF Helen Diller Family Comprehensive Cancer Center
ASSOCIATION OF NORTHERN CALIFORNIA ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach**Case 4 – Sarcoma Tumor Board**

- 25M veteran with recurrent right knee diffuse PVNS
- Diagnosed initially 2010, treated with arthroscopic debridement
- Multiple recurrences treated with arthroscopic debridements
- 2012 anterior open synovectomy
- 2013 posterior open synovectomy
- 2 years s/p most recent surgery presents with worsening knee pain and effusions

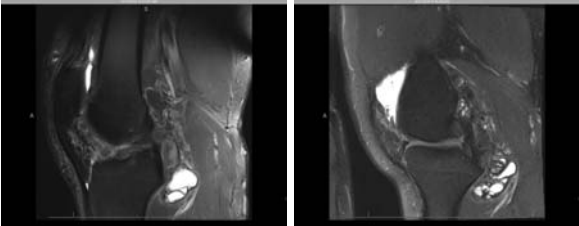
Stanford Cancer Institute
UC DAVIS COMPREHENSIVE CANCER CENTER
UCSF Helen Diller Family Comprehensive Cancer Center
ASSOCIATION OF NORTHERN CALIFORNIA ONCOLOGISTS





18th Multidisciplinary Management of Cancers: A Case-based Approach**Case 4 – Sarcoma Tumor Board**

Stanford Cancer Institute
UC DAVIS COMPREHENSIVE CANCER CENTER
UCSF Helen Diller Family Comprehensive Cancer Center
ASSOCIATION OF NORTHERN CALIFORNIA ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 4 – Sarcoma Tumor Board



18th Multidisciplinary Management of Cancers: A Case-based Approach

Question: What do you recommend next?

1. Repeat arthroscopic synovectomy, open debridement of bony disease
2. Radiation
3. Imatinib
4. Refer for CSFR1 inhibitor trial
5. Total knee arthroplasty





0%
1

0%
2

0%
3

0%
4





10
Countdown

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 4 – Sarcoma Tumor Board

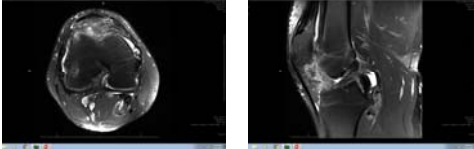
- 8/2015 repeat anterior arthroscopic synovectomy, curettage, argon beam and coral packing of lateral condyle lesion










18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 4 – Sarcoma Tumor Board

- 12/2017 presents again with right knee pain and swelling after walking or standing >1 hour
- New MRI demonstrates residual disease

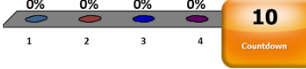


18th Multidisciplinary Management of Cancers: A Case-based Approach

Question: What do you recommend next?

1. Repeat arthroscopic synovectomy, open debridement of bony disease
2. Radiation
3. Imatinib
4. Refer for CSFR1 inhibitor trial
5. Total knee arthroplasty



Stanford Cancer Institute | UC DAVIS COMPREHENSIVE CANCER CENTER | UCSF Helen Diller Family Comprehensive Cancer Center | ASSOCIATION OF NORTHERN CALIFORNIA ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 4 – Sarcoma Tumor Board

Stanford Cancer Institute | UC DAVIS COMPREHENSIVE CANCER CENTER | UCSF Helen Diller Family Comprehensive Cancer Center | ASSOCIATION OF NORTHERN CALIFORNIA ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 4 – Sarcoma Tumor Board

Stanford Cancer Institute | UC DAVIS COMPREHENSIVE CANCER CENTER | UCSF Helen Diller Family Comprehensive Cancer Center | ASSOCIATION OF NORTHERN CALIFORNIA ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 4 – Sarcoma Tumor Board

- Symptoms manageable, wants to continue school
- Referred to Stanford for potential ongoing trial





END OF CASE 4

Stanford Cancer Institute | UC DAVIS COMPREHENSIVE CANCER CENTER | UCSF Helen Diller Family Comprehensive Cancer Center | ASSOCIATION OF NORTHERN CALIFORNIA ONCOLOGISTS

18th Multidisciplinary Management of Cancers: A Case-based Approach

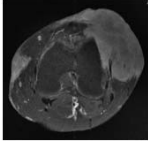
Case 5 – Sarcoma Tumor Board

- 60F presents with a fungating knee mass
- PMH significant for undifferentiated pleomorphic sarcoma of the left knee treated in Mexico
 - 1/2012: Resection of left anterior knee soft tissue mass
 - 6/2012: Relapse in gluteus muscle and anterior knee; **treated with 4 cycles of doxorubicin, ifosfamide and mesna**
 - 10/2013: 2nd relapse gluteal area treated with surgery and radiation (**30Gy**)
 - 12/2013: Surgery for anterior knee recurrence
- 4/2014: presents with fungating and foul smelling multinodular left anterior knee mass and medial ankle mass

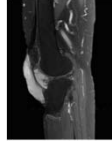





18th Multidisciplinary Management of Cancers: A Case-based Approach


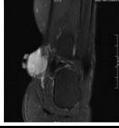
Case 5 – Sarcoma Tumor Board







Post-gad axial



Sagittal T2 MRI knee

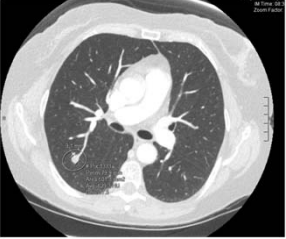
Medial Ankle Mass










18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 5 – Sarcoma Tumor Board

- CT chest shows 9mm RUL solitary lung nodule



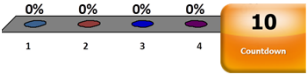









18th Multidisciplinary Management of Cancers: A Case-based Approach

Biopsy → Recurrent undifferentiated sarcoma
 Baseline staging studies → solitary 9mm RUL nodule

Question: What do you recommend next?

1. Prioritize the local recurrence: above the knee amputation
2. Prioritize the metastatic disease: chemotherapy
3. Consider staged amputation and metastasectomy
4. Consider cyberknife radiation for the lung nodule




18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 5 – Sarcoma Tumor Board

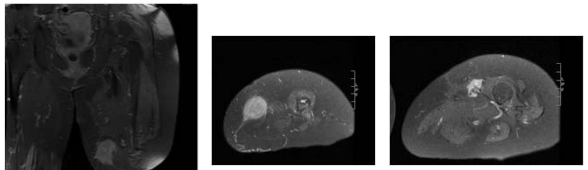

- 5/7/14: Left above the knee amputation
 - Pathology: multiple foci of recurrent 3/3 UPS, largest 10cm; medial ankle with metastatic UPS, margins negative
- 6/14/14: Right upper lobe VATS wedge resection
 - Pathology grade 3/3 UPS



18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 5 – Sarcoma Tumor Board

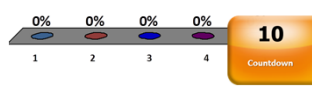

- 18 months after surgery:
 - MRI LLE with 2 new soft tissue nodules at distal amputation stump
 - FNA confirms recurrent UPS

18th Multidisciplinary Management of Cancers: A Case-based Approach

Question: What do you recommend next?


1. Radiation
2. Chemotherapy
3. Resection
4. Higher level amputation

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 5 – Sarcoma Tumor Board

- Started chemotherapy: x X cycles
- 4/2016 nodules resected → positive margin → higher level amputation
- ? Resumed chemotherapy



Case 5 – Sarcoma Tumor Board

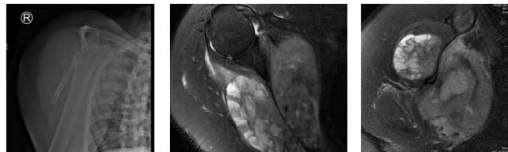
- Follow up:
 - NED 72 months from initial diagnosis
 - NED 19 months from revision amputation
- Discussion/ Questions?

•End of Case 5

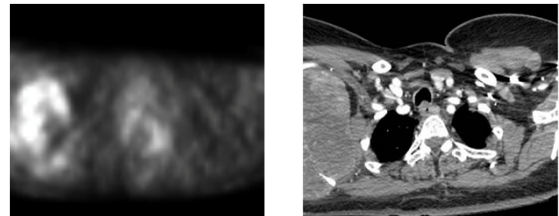
Case 6 – Sarcoma Tumor Board

- 64F transferred in from an outside ED with worsening shoulder pain and a large right shoulder mass.
 - Had fallen on shoulder 3mo PTA, noted worsening pain and swelling since
 - Radiographs and MRI obtained by PMD who noted very large scapular mass and sent to ED
- PMH notable for DM, CAD s/p 5v CABG 4/2016, HTN, PVD, CVA
- ROS notable for fevers to 102 and night sweats
- Clinical evaluation revealed very tender, large fixed mass over the posterior right shoulder/scapula. Distally neurovascularly intact. No active, limited passive shoulder ROM 2/2 pain.

Case 6 – Sarcoma Tumor Board




Case 6 – Sarcoma Tumor Board



18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 6 – Sarcoma Tumor Board

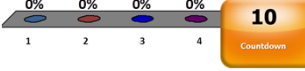

- **Biopsy**
 - Undifferentiated pleomorphic sarcoma



18th Multidisciplinary Management of Cancers: A Case-based Approach

Question: What do you recommend next?


1. Neoadjuvant chemotherapy
2. Neoadjuvant radiation therapy
3. Combined neoadjuvant therapy
4. Wide resection

18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board


- Elected to start chemotherapy AIM
 - Developed signs of ifosfamide toxicity (Confusion) and anemia requiring transfusion



18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board

- Repeat MRI after cycle demonstrated no change in tumor size, restaging studies demonstrated no metastatic disease
- Felt the mass was resectable with total scapulectomy
 - Deferred radiation pending resection/margin status
- Panel:
 - What is your surgical plan?
 - Reconstruct scapula?



18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board

- Total scapulectomy; allograft reconstruction
- Final pathology
 - Grade 3/3 Undifferentiated pleomorphic sarcoma
 - Negative margins, closest margin 0.7cm
- Panel
 - What is the role for adjuvant treatment at this time?

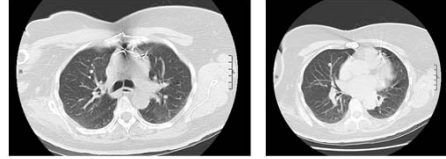





18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board

- Continued surveillance q3mo scans
- New 4mm RUL nodule, 7mm RML nodule, 3mm LLL nodule








18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board

- Started chemotherapy with dose reduced gemcitabine 675mg/m² and taxotere 50mg/m² with neulasta support






18th Multidisciplinary Management of Cancers: A Case-based Approach

Case 2 – Sarcoma Tumor Board

- Follow-Up
- Discussion/ Questions?
- End of Case 2






18th Multidisciplinary Management of Cancers: A Case-based Approach

**End of the
Sarcoma Tumor Board**

Thank you for your participation!

