Limb-salvage Operations in Musculoskeletal Oncology

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Surgical Technique
Pathology Report
Follow-up
TRUST ME
I WATCH
Grey’s Anatomy
I’M BASICALLY
A SURGEON.

Surgical
Technique
Surgical Technique

Full operative excision of both the primary lesion and/or metastasis is a prerequisite for long-term survivorship.

Wide excision margins “secure” local control.

Surgical operation should be performed in Designated Oncological Centers.

The majority of amputations take place in non-designated oncological centers.


Limb-salvage Operations in Musculoskeletal Oncology
The best treatment modality is discussed and approved during an MDT meeting.

- "Eretria" Workgroup Consensus Meeting

Surgical Technique

Limb-salvage Operations in Musculoskeletal Oncology
Case #1
Medical record file and/or photos belong to a patient treated by the speaker
Case #2

Medical record file and/or photos belong to a patient treated by the speaker
Case #3
Medical record file and/or photos belong to a patient treated by the speaker
3 months postop
12 months postop
12 months postop
Limb salvage is always tried, as long as proper oncological treatment is not at stake.

Nonetheless, postoperative limb function should be also taken into consideration, once wide margins have been achieved.
Does limb salvage procedures lead to increased local recurrence rates?

Some studies disagree with that.


Others claim exactly the opposite.

Local recurrence and/or metastasis excision(s) should be decided during an MDT meeting.

Case #4

Medical record file and/or photos belong to a patient treated by the speaker
Intramedullary Nailing is contra-indicated!

It can only be taken into consideration in selected cases.

Case #5

Medical record file and/or photos belong to a patient treated by the speaker
• Chemo-sensitive tumors may need neo-adjuvant preoperative chemotherapy.
• Wide excision should be performed right away, when the tumor is not chemo-sensitive.
• In some cases, the only “viable” option is amputation.

Surgical Technique


Limb-salvage Operations in Musculoskeletal Oncology
Intralesional or bulk excision or tumor "reduction" are NOT surgical options.

• Jeon DG, Lee SY, Kim JW. Bone primary sarcomas undergone unplanned intralesional procedures - the possibility of limb salvage and their oncologic results. J Surg Oncol.
• “Eretria” Workup Group Consensus Meeting

Limb-salvage Operations in Musculoskeletal Oncology
Case #7

Medical record file and/or photos belong to a patient treated by the speaker
4 months postop
We never use an Esmarch bandage!
Just elevate the limb for 10 minutes!

The Tourniquet should always be deflated prior to wound closure.
Case #8

Medical record file and/or photos belong to a patient treated by the speaker
Use Water for Injection and not Saline

Surgical instruments should be replaced following the resection of the tumor.
Incision length should be kept to minimal.

Surgical exposure should follow the longitudinal axis of the limb.
Perform meticulous hemostasis

Blood drainage placement is not an excuse for incomplete hemostasis.
Surgical Technique

Always plan ahead

Remove the biopsy incision scar
Case #9

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Case #10
Medical record file and/or photos belong to a patient treated by the speaker.

Limb-salvage Operations in Musculoskeletal Oncology
CT-guided core needle biopsy
Open biopsy 3/52 following CT-guided core needle biopsy
1 month since chemo initiation
1 month since chemo initiation
1 month since chemo initiation
1 month since chemo initiation
1 month since chemo initiation
1 month since chemo initiation
1 month since chemo initiation
1 month since chemo initiation
1 month since chemo initiation
3 months since chemo initiation
3 months since chemo initiation
4 months since chemo initiation
4 μήνες μετά την έναρξη χημειοθεραπείας
4 μήνες μετά την έναρξη χημειοθεραπείας
Case #11
Medical record file and/or photos belong to a patient treated by the speaker
Surgical Technique

Meticulous wound closure. Avoid necrotic areas.

Use skin sutures instead of Stapler.
Case #12

Medical record file and/or photos belong to a patient treated by the speaker
Pathology Report
Take an imprint from the remaining “healthy” stump.

Keep a detailed record of the operation.

Mark with a suture the excised specimen.

Is the final pathology report in harmony with the initial biopsy?

Have we achieved adequate surgical margins?

Follow-up
Extremely Important

Timely discovery of local recurrence and/or metastases

Re-operation and/or chemo- and/or radiotherapy
Follow-up

Local imaging (CT- and/or MRI-scan)

Chest CT-scan

Whatever else is deemed necessary
For 0-18 months postoperatively

Every 3 months
For 18-36 months postoperatively

Every 4 months
Follow-up

For 36-60 months postoperatively

Every 6 months
For 60-... months postoperatively

Every 12 months
Take Home Messages...
When a patient with a musculoskeletal tumor is treated by expert surgeons and in designated Centers of excellence, recurrence rate is <10%.

Increased local recurrence rates may be expected if:
- The patient is being treated in a non-designated Oncological center
- Excision margins are not “clear”

When treating patients with Musculoskeletal Tumors, we must obey 2 rules.
Obey the Guidelines for the Treatment of patients with Musculoskeletal Tumors  

RULE #1
Take Home Messages...

Obey Rule #1

RULE #2
Thank you...