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# CASE REPORT: USING TUMOR IMPLANTS IN LIMB SALVAGE PROCEDURE IN FIRST CENTRAL HOSPITAL OF MONGOLIA

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Background

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Bone tumors are rare but it is challenging to decide the appropriate treatment or procedure. Particularly, choosing whether limb salvage procedure or amputation has been concerning. At The First Central Hospital of Mongolia, the first limb preserving procedure performed in 2013. We report some of limb salvage procedures using endoprosthesis which were performed by the orthopedic team of The First Central Hospital of Mongolia whereas different hospitals recommend amputation. In addition, tumor implants are used not only for bone tumors, but also used in case of huge bone deficiency due to osteomyelitis, trauma and other causes.

#### Case report 1.

Patient S. 57 years old, male.

R/O: Left proximal femur bone tumor Histopathology: Chondromyxoid fibroma

Symptoms: increasing left hip and proximal thigh pain when walking or standing.

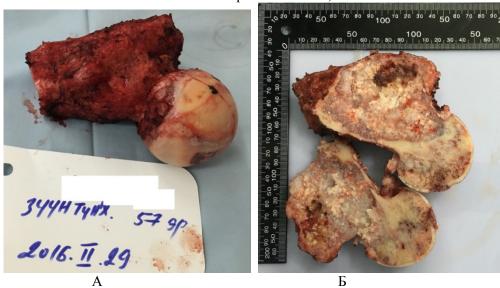
ROM: slightly limited in abduction and flexion.

Operation name: Left proximal femur tumor prosthesis implantation.

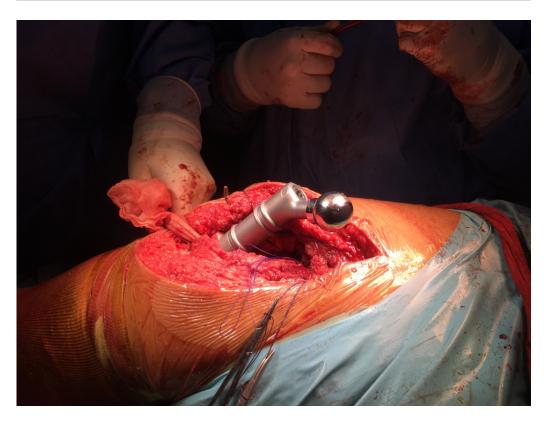
The length of hospital stay was 10 days.



Picture 1. Left proximal femur, bone tumor



Picture 2. Macroctructure of bone tumor. (A – wide excised tumor, B – tumor appearance of divided into half)



Picture 3. Perioperative image of tumor prosthesis implantation



Picture 4. Postoperative lateral X-ray of left proximal femoral tumor prosthesis. General health condition of the patient was fairly acceptable, wound healed on its own without any complication

### Case report 2.

Patient M, 73 years old, female.

Operation history: Total knee arthroplasty performed in 2013.

Complication after TKA: Periprosthetic deep infection.

Second operation: Foreign body removal, long term static antibiotic spacer.

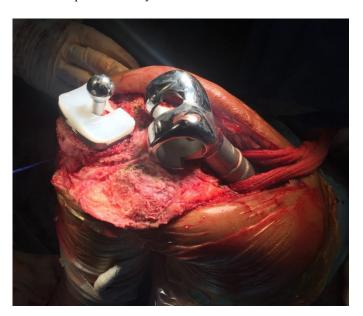
After the second operation there was huge bone defect in the distal femoral site.

Revision surgery: Left distal femoral tumor endoprosthesis implantation performed.

The length of hospital stay was 10 days.



Picture 5. Preoperative X-ray of the left knee with arthrodesis



Picture 6. Intraoperative photo of the left distal femoral tumor implant





Picture 7. Postoperative x-ray of the left distal femur

## Case 3

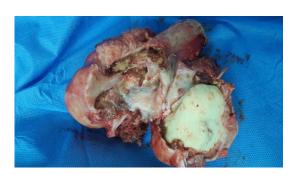
Patient C. 30 years old, female.

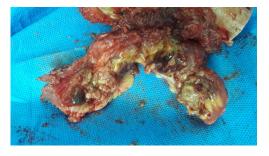
Diagnosis: Left distal femoral giant cell tumor.

Histopathology: Giant cell tumor.

Operation name: Left distal femoral tumor prosthesis implantation.

Length of hospital stay was 7 days.





Picture 8. Intraoperative photo of resected tumo





Picture 9. Postoperative X-ray. A. X-ray of the operation site. B. Postoperative standing X-ray **Conclusion** 

Bone tumor is rare but most of cases are difficult to decide appropriate treatment option. Amputation is not the only option for bone tumor of long bones. Limb salvage surgeries using tumor prosthesis are performed successfully more than 20 cases during last 6 years at The First Central Hospital of Mongolia.

### ИСПОЛЬЗОВАНИЕ ИМПЛАНТА ПРИ ОПУХОЛИ С ЦЕЛЬЮ СОХРАНЕНИЯ КОНЕЧНОСТИ В ПЕРВОЙ ЦЕНТРАЛЬНОЙ БОЛЬНИЦЕ МОНГОЛИИ

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Опухоли костей встречаются редко, но при этом сложно выбрать соответствующее лечение или процедуру. В частности, выбор процедуры спасения конечности или ампутации имеет значение. В Первой центральной больнице Монголии первая процедура по сохранению конечностей была проведена в 2013 году. В работе представлены некоторые процедуры по спасению конечностей с использованием эндопротеза, которые были выполнены командой ортопедов Первой центральной больницы Монголии, тогда как в разных больницах рекомендуется ампутация. Кроме того, опухолевые имплантаты используются не только при опухолях костей, но и при огромном дефиците костей вследствие остеомиелита, травм и других причин.

*Ключевые слова:* имплант, опухоль, сохранение конечности, Первая центральная больница Монголии, эндопротез.