

# Luaran onkologi dan fungsional tata laksana tumor tulang yang dilakukan prosedur Limb salvage surgery (Lss) dengan megaprostesis di RS Cipto Mangunkusumo Jakarta = Oncological and functional outcome of Limb salvage surgery (Lss) in bone tumor with megaprosthesis at Cipto Mangunkusumo Hospital Jakarta

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## Abstrak

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Pendahuluan Penggunaan megaprostesis sebagai pilihan dalam manajemen LSS memberikan harapan baru bagi pasien tumor tulang di Indonesia. Namun, sampai saat ini belum ada data hasil luaran dari tata laksana ini.

Metode Penelitian ini merupakan prospektif observational pada 34 pasien tumor tulang di RS Cipto Mangunkusumo pada tahun 2011-2015. Diagnosis ditegakkan melalui Clinical Pathological Conference. Evaluasi pascaoperasi dilakukan pada bulan ke-3, 6, 9, 12, 24, 36, dan 48 dengan menggunakan skoring dari MSTS.

Luaran onkologi dievaluasi dengan adanya rekurensi dan metastasis jauh.

Komplikasi berupa infeksi, dislokasi, cedera saraf dan pembuluh darah, serta gangguan mekanisme ekstensor juga dievaluasi.

Hasil Dua orang ahli bedah muskuloskeletal onkologi melakukan operasi LSS dan rekonstruksi dengan megaprostesis. Dua pasien dieksklusi karena keputusan intraoperatif untuk memakai non modular endoprosthesis. Kehilangan darah intraoperatif memiliki median (RAK) 890,0 (700,0-1200,0) ml. Skor MSTS sebagian besar pasien menunjukkan kategori baik dan sangat baik, yaitu 67.9% baik pada MSTS 6 bulan, 79,2% baik pada MSTS 9 bulan, 63.4% sangat baik pada 12 bulan, 90% sangat baik pada 24 bulan dan 100% sangat baik pada MSTS 36 bulan. Terdapat hubungan bermakna antara karakteristik pasien yaitu jenis tumor ( $p=0,001$ ), usia ( $p=0,039$ ), jenis kelamin ( $p=0,049$ ), dan hasil laboratorium ALP ( $p=0,031$ ) dengan luaran fungsional MSTS 3 bulan. Terdapat hubungan bermakna antara karakteristik pasien yaitu perdarahan intraoperatif ( $p=0,013$ ) dan ALP ( $p=0,009$ ) dengan mortalitas; dan juga antara tumor tulang yang menjalani rekonstruksi jaringan lunak ekstensif dengan komplikasi ( $p=0,019$ ) namun antara lokasi tumor dan komplikasi tidak terdapat hubungan bermakna.

Kesimpulan Luaran fungsional pada pasien yang dilakukan rekonstruksi megaprostesis adalah baik dan sangat baik sehingga dapat menjadi tatalaksana pilihan bagi pasien tumor tulang yang akan menjalani LSS. Luaran onkologi pada pasien yang dilakukan prosedur LSS baik dengan rendahnya rekurensi lokal, metastasi, dan komplikasi.

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Introduction Advancement in bone tumor management has elaborated surgeon's

choice of treatment not merely sentenced the patients into a limb ablation.

Likewise, patients with bone tumors, regardless its malignant nature and limited survival time, had an equal privileges to opt for LSS to experience a better quality of life. In this study, we manage to evaluate the functional and oncologic outcome of lower extremity bone tumors following a LSS using megaprosthesis.

**Methods** Thirty-four patients with lower extremity bone tumors were prospectively reviewed between 2011 and 2015 in a tertiary referral general hospital. All patients were managed through a Clinical Pathology Conference. Functional outcome was evaluated using MSTTS score and follow up was recorded at 3, 6, 12 months; and 2, 3, 4 years.

**Results** Two orthopedic musculoskeletal oncologic surgeons were performing the surgeries. Two patients were excluded because the final instruments used were not a modular type. The final result of functional score was good to excellent with 67.9% good at 6 months, 79,2% good at 9 months, 63.4% excellent at 12 months, 90% excellent at 24 months and 100% excellent at 36 months. Complications occurred and varied. A statistical significant result was found between age ( $p=0,001$ ), age ( $p=0,039$ ), gender ( $p=0,049$ ), SAP ( $p=0,031$ ) and 3 months functional outcome; between intraoperative blood loss ( $p=0,013$ ) and mortality, as well as SAP with mortality ( $p=0,009$ ); between tumor that underwent extensive soft tissue reconstruction procedure and complication ( $p=0,019$ ).

**Conclusion** Megaprosthesis reconstruction in bone tumors gives a good and excellent result, which provides orthopaedic oncologic surgeons a rationalization to make a selective decision-making in tumor cases regardless its survival and tumor type. Oncologic outcome as well gave out good result with low incidence of far metastasis and local recurrence.;**Introduction** Advancement in bone tumor management has elaborated surgeon's choice of treatment not merely sentenced the patients into a limb ablation.

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