Ketepatan diagnosis biopsi jarum inti pada lesi muskuloskeletal di RSUPN Cipto Mangunkusumo Jakarta = Accuracy core needle biopsy for musculoskeletal lesion in Cipto Mangunkusumo Hospital Jakarta

Peter Giarso, author

Abstrak

ABSTRAK
 Pendahuluan: Biopsi jarum inti dianggap memiliki hasil akurasi yang sama dengan biopsi terbuka dan telah menjadi prosedur rutin untuk menegakkan diagnosis lesi muskuloskeletal. Namun demikian uji diagnostik biopsi jarum inti di Rumah Sakit Umum Pusat Nasional Cipto Mangunkusumo (RSUPN CM) belum dilaporkan. Tujuan dari analisis retrospektif ini adalah untuk mendapatkan nilai ketepatan diagnosis biopsi jarum inti pada lesi muskuloskeletal.

Metode: Dari Januari 2011 hingga Agustus 2015, semua pasien dengan lesi muskuloskeletal di RSUPN CM yang menjalani biopsi jarum inti dan eksisi tumor diidentifikasi dan diambil datanya. Ketepatan diagnosis dianalisis baik untuk kesimpulan histopatologi maupun kesimpulan clinical pathology conference (CPC).

Hasil: Sebanyak 86 sampel dikumpulkan dalam penelitian ini. Ketepatan diagnosis biopsi jarum inti dibandingkan dengan spesimen pasca eksisi adalah 74,4%. Setelah dilakukan CPC, nilai ketepatan menjadi 83,7% dengan sensitivitas 98%, spesifisitas 59%, NDP 87%, NDN 93% (p = 0.00). Ketepatan biopsi jarum inti setelah pulasan imunohistokimia naik menjadi 84,9% (p = 0,438). Ketepatan untuk membedakan lesi jinak dan ganas adalah 97,1% (jinak) dan 82,7% (ganas) (p = 0.00). Ketepatan untuk membedakan lesi primer dan metastasis adalah 97,2% (primer) dan 85,7% (metastasis) (p = 0.00).

Diskusi: Kami mendapatkan nilai ketepatan biopsi jarum inti yang sedikit lebih rendah karena dalam penelitian ini dituntut untuk membuat diagnosis sampai tingkat morfologi (ICD O dan ICD X). Namun demikian, dengan modalitas lain seperti imunohistokimia dan kesimpulan CPC, ketepatan menjadi meningkat. Ketepatan diagnosis untuk membedakan lesi jinak-ganas dan primer-metastasis tinggi. Biopsi jarum inti direkomendasikan untuk penegakkan diagnosis lesi muskuloskeletal.ABSTRACT
 Introduction: Core needle biopsy is considered to have similar results with open biopsy in accuracy and already become a routine procedure to establish the diagnosis of musculoskeletal lesion. However, diagnostic test of core needle biopsy application in Cipto Mangunkusumo Hospital has not been reported. Therefore, the aim of this retrospective analysis was to attain the accuracy of musculoskeletal lesion diagnosis using core needle biopsy.

Methods: From January 2011 to August 2015, all patients with musculoskeletal lesion in Cipto Mangunkusumo Hospital underwent core needle biopsy and subsequent tumour excision were indentified and enrolled. Diagnostic accuracy were calculated for both histopathology and clinical pathology conference (CPC) conclusion.

Results: A total of 86 samples were indentified and enrolled in this study. The accuracy of core needle biopsy compared to subsequent excision is 74.4%. With CPC conclusion, the accuracy is 83.7% with sensitivity 98%, specificity 59%, PPV 87%, NPV 93% (p=0.00). The accuracy with immunohistochemistry is 84.9% (p=0.438). The accuracy to distinguish benign and malignant lesion is 97.1% (benign) and 82.7% (malignant) (p= 0.00). The accuracy to distinguish primary and metastatic lesion is 97,2% (primary) and 85,7% (metastatic) (p= 0.00).

Discussion: We found slightly inferior results for core needle biopsy accuracy compared to literature due to high specificity diagnosis obligatory (ICD O and ICD X morphology) in our study. However, with other modalities such as immunohistochemistry and CPC, the accuracy is increased. The accuracy to distinguish between benign vs malignant and primary vs metastatic lesion is high. Core needle biopsy is recommended to establish diagnosis for selected musculoskeletal lesions.
;Introduction: Core needle biopsy is considered to have similar results with open biopsy in accuracy and already become a routine procedure to establish the diagnosis of musculoskeletal lesion. However, diagnostic test of core needle biopsy application in Cipto Mangunkusumo Hospital has not been reported. Therefore, the aim of this retrospective analysis was to attain the accuracy of musculoskeletal lesion diagnosis using core needle biopsy.

Methods: From January 2011 to August 2015, all patients with musculoskeletal lesion in Cipto Mangunkusumo Hospital underwent core needle biopsy and subsequent tumour excision were indentified and enrolled. Diagnostic accuracy were calculated for both histopathology and clinical pathology conference (CPC) conclusion.

Results: A total of 86 samples were indentified and enrolled in this study. The accuracy of core needle biopsy compared to subsequent excision is 74.4%. With CPC conclusion, the accuracy is 83.7% with sensitivity 98%, specificity 59%, PPV 87%, NPV 93% (p=0.00). The accuracy with immunohistochemistry is 84.9% (p=0.438). The accuracy to distinguish benign and malignant lesion is 97.1% (benign) and 82.7% (malignant) (p= 0.00). The accuracy to distinguish primary and metastatic lesion is 97,2% (primary) and 85,7% (metastatic) (p=

0.00).

Discussion: We found slightly inferior results for core needle biopsy accuracy compared to literature due to high specificity diagnosis obligatory (ICD O and ICD X morphology) in our study. However, with other modalities such as immunohistochemistry and CPC, the accuracy is increased. The accuracy to distinguish between benign vs malignant and primary vs metastatic lesion is high. Core needle biopsy is recommended to establish diagnosis for selected musculoskeletal lesions.
;Introduction: Core needle biopsy is considered to have similar results with open biopsy in accuracy and already become a routine procedure to establish the diagnosis of musculoskeletal lesion. However, diagnostic test of core needle biopsy application in Cipto Mangunkusumo Hospital has not been reported. Therefore, the aim of this retrospective analysis was to attain the accuracy of musculoskeletal lesion diagnosis using core needle biopsy.

Methods: From January 2011 to August 2015, all patients with musculoskeletal lesion in Cipto Mangunkusumo Hospital underwent core needle biopsy and subsequent tumour excision were indentified and enrolled. Diagnostic accuracy were calculated for both histopathology and clinical pathology conference (CPC) conclusion.

Results: A total of 86 samples were indentified and enrolled in this study. The accuracy of core needle biopsy compared to subsequent excision is 74.4%. With CPC conclusion, the accuracy is 83.7% with sensitivity 98%, specificity 59%, PPV 87%, NPV 93% (p=0.00). The accuracy with immunohistochemistry is 84.9% (p=0.438). The accuracy to distinguish benign and malignant lesion is 97.1% (benign) and 82.7% (malignant) (p= 0.00). The accuracy to distinguish primary and metastatic lesion is 97,2% (primary) and 85,7% (metastatic) (p= 0.00).

Discussion: We found slightly inferior results for core needle biopsy accuracy compared to literature due to high specificity diagnosis obligatory (ICD O and ICD X morphology) in our study. However, with other modalities such as immunohistochemistry and CPC, the accuracy is increased. The accuracy to distinguish between benign vs malignant and primary vs metastatic lesion is high. Core needle biopsy is recommended to establish diagnosis for selected musculoskeletal lesions.