Penilain kedalaman invasi kanker endometrium tipe 1 dengan magnetic resonance diffusion weighted imaging = Evaluation of myometrial invasion in type 1 endometrial cancer using magnetic resonance diffusion weighted imaging

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Abstrak

Latar belakang: Kanker endometrium merupakan kasus kanker baru terbanyak ke dua pada organ ginekologi setelah kanker serviks. Kanker endometrium dikategorikan menjadi dua: tipe I (estrogen related) dan tipe II (nonestrogen related). Kanker endometrium tipe I merupakan kasus tersering dari kanker endometrium. Manajemen utama untuk kanker endometrium adalah operasi. Tindakan operasi dan terapi adjuvan kasus kanker endometrium tipe I dipengaruhi beberapa variabel yang dapat dinilai preoperasi. Invasi miometrium dan keterlibatan serviks merupakan variabel preoperasi yang penting pada kanker endometrium tipe I. Magnetic resonance diffusion weighted imaging merupakan metode yang menjanjikan dalam menilai invasi miometrium dan keterlibatan serviks.
Metode: Penelitian cross-sectional dilakukan untuk menganalisis hasil magnetic resonance diffusion weighted imaging dalam menilai invasi miometrium dan keterlibatan serviks. Penelitian ini melibatkan semua pasien kanker endometrium tipe I di RSUP Dr. Cipto Mangunkusumo dari April 2016 hingga April 2019. Invasi miometrium dan keterlibatan serviks diperiksa menggunakan mesin MRI 1,5 T. Hasil pemeriksaan dibandingkan dengan histopatologi sebagai standar.
Hasil: Sebanyak 34 pasien dilibatkan dalam penelitian ini. Rentang usia pasien berkisar dari 22 hingga 73 tahun. Hasil histopatologi semua pasien yang dimasukkan dalam penelitian ini adalah kanker endometrium tipe I. Pemeriksaaan menggunakan magnetic resonance diffusion weighted imaging memberiksan hasil 22 pasien (64,7%) dengan kedalaman invasi miometrium lebih dari 50% dan 12 pasien (35,3%) dengan kedalaman invasi miometrium kurang dari 50%; 6 pasien (17,6%) dengan keterlibatan serviks dan 28 pasien (82,4%) tidak ada keterlibatan serviks. Hasil histopatologi menunjukkan 17 pasien (50%) dengan kedalaman invasi miometrium lebih dari 50% maupun kurang dari 50%; 7 pasien (20,6%) dengan keterlibatan serviks dan 27 pasien (79,4%) tidak ada keterlibatan serviks. Sensitivitas dan spesifisitas magnetic resonance diffusion weighted imaging dalam menilai invasi miometrium pada kanker endometrium tipe I adalah 94,12% dan 64,71%, secara berurutan. Sensitivitas dan spesifisitas magnetic resonance diffusion weighted imaging dalam menilai keterlibatan serviks pada kanker endometrium tipe I adalah 57,14% dan 92,59%, secara berurutan.
Simpulan: Magnetic resonance diffusion weighted imaging dapat memberikan informasi prognostik yang cukup baik mengenai invasi miometrium dan keterlibatan serviks pada pasien kanker endometrium.
.....Background: Endometrial cancer is the second most common new case reproductive organ cancer in the world after cervical cancer. Two different clinicopathologic subtypes of endometrial cancer are categorized: estrogen related (type I) and nonestrogen related (type II). Type I endometrial cancer accounts for approximately 75 percent of all endometrial cancer cases. Primary management for endometrial cancer is surgery. Operation procedure and adjuvant treatment of type I endometrial cancer were affected by some variables assessed preoperatively. Myometrial invasion and cervical involvement are important prognostic

variables in type I endometrial cancer. Magnetic resonance diffusion weighted imaging is promising in evaluation of myometrial invasion and cervical involvement.
Methods: We conducted a cross-sectional study to analyze the result of magnetic resonance diffusion weighted imaging in evaluating myometrial invasion and cervical involvement. This study involved all type I endometrial cancer patients in Dr. Cipto Mangunkusumo Hospital from April 2016 until April 2019. The depth of myometrial invasion and cervical involvement was examined using 1,5-T MR unit. The result was compared to the surgical pathologic findings as the reference standard.
Result: 34 patients were enrolled in this study. Patient age was ranged from 22 until 73 years old. All of the patient pathologic findings were type I endometrial cancer. Evaluation using magnetic resonance diffusion weighted imaging showed 22 patients (64,7%) had 1/2 myometrial invasion and 12 patients (35,3%) had < 1/2 myometrial invasion; 6 patients (17,6%) had cervical involvement and 28 patients (82,4%) had not cervical involvement. Based on surgical pathologic findings, there were 17 patients (50%) had 1/2 myometrial invasion and also for the patient with < 1/2 myometrial invasion; 7 patients (20,6%) had cervical involvement and 27 patients (79,4%) had not cervical involvement. Sensitivity and specificity of magnetic resonance diffusion weighted imaging to evaluate myometrial invasion in type I endometrial cancer were 94,12% and 64,71%, respectively. Sensitivity and specificity of magnetic resonance diffusion weighted imaging to evaluate cervical involvement in type I endometrial cancer were 57,14% and 92,59%, respectively.
Conclusion: Magnetic resonance diffusion weighted imaging can provide reliable prognostic variable information about myometrial invasion and cervical involvement in preoperative preparation of endometrial cancer patients.