P3-IS-49  Non-invasive magnetic resonance imaging-guided focused ultrasound treatment for uterine fibroids: early experience

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[Objective] To describe early results regarding efficacy and safety of magnetic resonance imaging-guided focused ultrasound surgery (MRgFUS) for the treatment of uterine leiomyomas among a population of Japanese women. [Methods] In this single site study, sixty-six Japanese women over 24 years of age, who were candidates for surgical intervention due to symptomatic fibroids were recruited. Seventy-six uterine fibroids were treated by MRgFUS with patients consent and followed up for 12 months. [Results] Throughout the 12 months follow-up period, four patients (6%) required additional surgical interventions. The average reduction in fibroid volume determined by MR imaging at 6 months and 12 months after treatment was 29% and 33%, respectively. This volume reduction is correlated with the fibroid's treated volume. No serious complications were recorded during the treatments or follow-up period. [Conclusion] MRgFUS can safely be used to non-invasively treat symptomatic uterine fibroids and avoid the need for surgical intervention in the short term. In large treatment volumes, MRgFUS also results in significant fibroid shrinkage in relatively short time. Additional follow-up is needed to determine the long-term durability of this promising non-invasive approach.

P3-IS-50  Comparison of tension-free vaginal mesh and conventional procedure in treatment for pelvic organ prolapse

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[Objective] The aim of this study is to compare the tension-free vaginal mesh (TVM) and conventional surgical procedure for treatment of pelvic organ prolapse (POP). [Methods] Forty-nine women with pelvic organ prolapse were involved. Thirty-six women underwent conventional surgical procedure of anterior and posterior colporrhaphy with sacropinous ligament fixation or uterosacral ligament fixation (S group). Thirteen women were treated using TVM (M group). Four transobturator points, 2 points crossing the sacropinous ligament and 2 points on the levator ani were placed to install the mesh. The clinical data of the two procedures one month after surgery was compared. [Results] There was no difference between the two groups in postvoid residual urine volume, the result of urine culture, pad test, incidence of stress urinary incontinence and urge urinary incontinence, and vaginal length one month after surgery. Q-tip test was improved in S group after surgery, but not in M group. The two groups were similar in the amount of bleeding during surgery, however hemoglobin level was lower in M group on 1 and 3 postoperative days, suggesting hemorrhage inside the puncture points. [Conclusion] TVM seems to be as excellent as conventional procedures regarding most of the clinical data. TVM appears to have no effects on correcting the hypermobility of the bladder neck from our data.

P3-IS-51  Three-dimensional volume sonography for nuchal translucency thickness measurements —second report—

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[Objective] In the previous report, the accuracy of nuchal translucency measurement with a 3D volume data was evaluated and found an excellent correlation between the measurement via direct standard 2D and via 3D reconstruction. Also, the possibility of NT volume to be an alternative parameter of NT evaluation was suggested. With the additional measurements, we found more reliable results suggesting that 3D volume data could be an alternative standard method of NT measurement. [Methods] One hundred eleven women at 11 to 14 weeks gestation were included. The 2D and 3D transabdominal NT measurements were performed. NT thickness by 2D and 3D was compared. Also, the volume of NT was measured and compared with NT thickness. [Results] The median gestational age was 11.3 weeks of pregnancy. One hundred and one fetuses had NT of less than 3mm and 9 fetuses had NT of 3mm or more. The correlation between 2D and 3D NT measurement was highly significant (r = .982, P = .0001). NT volume correlated with NT thickness significantly (r = .907, P < .0001). [Conclusion] 3D ultrasound had better reproducibility and feasibility, faster measurement, as well as easier reevaluations from stored volumes. The significant correlation between NT thickness and NT volume was noted. The reliability of NT volume to be an alternative parameter of NT evaluation has shown.