Value of thin-section oblique axial T2-weighted magnetic resonance images to assess uterosacral ligament endometriosis

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BACKGROUND: Thin-section oblique axial magnetic resonance imaging (MRI) is useful in staging endometrial and cervical carcinomas but there are no data on its contribution to assessing deep endometriosis. We evaluated the contribution of this MRI technique to diagnosis of uterosacral ligament (USL) endometriosis.

METHODS: In this retrospective study, two radiologists, who were blinded to the surgical and histological results, compared the results from conventional sagittal and axial MRI with those from conventional plus thin-section (3 mm) oblique axial MRI in 100 symptomatic patients. Descriptive statistical analyses including sensitivity, specificity, positive and negative predictive values, accuracy and positive and negative likelihood ratios were performed. Kappa for inter-observer agreement was calculated.

RESULTS: Conventional MR images for the diagnosis of left/right USL endometriosis revealed accuracies of 69/76 and 59/75%, sensitivities of 66/71 and 52/71% and specificities of 76/86 and 76/82% for senior and junior readers, respectively. The combination of conventional and thin-section oblique axial MR images revealed accuracies of 82/87 and 74/81%, sensitivities of 89/93 and 73/81% and specificities of 61/72 and 76/79%, for senior and junior readers, respectively. When conventional MRI combined with oblique axial T2-weighted MRI was compared with conventional MRI use only, significant differences in diagnostic accuracies were observed for right (P = 0.04) and left (P = 0.01) USL endometriosis.

CONCLUSIONS: Thin-section oblique axial T2-weighted imaging can improve the success of conventional MRI for assessment of USL endometriosis. Further prospective studies are required before this new MR protocol is performed routinely for suspected pelvic endometriosis.

Key words: endometriosis / uterosacral ligament / magnetic resonance imaging / comparative studies / deep infiltrating endometriosis

Introduction

Deep endometriosis is defined by the presence of endometrial implants, fibrosis and muscular hyperplasia below the peritoneum (Cornillie et al., 1990; Anaf et al., 2000; Clement, 2002). Uterosacral ligaments (USLs) represent the most frequent location of deep endometriosis (Jenkins et al., 1986; Clement, 2002). USL endometriosis is a source of pelvic pain and dyspareunia and is often associated with other pelvic locations of deep endometriosis including rectosigmoid colon, vagina and rectovaginal septum (Redwine, 1999).

Magnetic resonance imaging (MRI) is the reference standard for the non-invasive evaluation of deep endometriosis, offering an exhaustive mapping of the pelvic cavity contributing to the therapeutic strategy for pelvic endometriosis (Bazot et al., 2004a, 2009). T2-weighted MRI seem to be the best imaging technique to detect normal and abnormal USL (Bazot et al., 2004a; Bazot et al., 2007). Sagittal and axial T2 and T1-weighted MR images represent the usual MRI protocol for the diagnosis of pelvic endometriosis, including USL evaluation (Bazot et al., 2004a). In most studies, a 5 mm slice thickness is performed allowing a complete evaluation of the whole pelvic cavity (Kinkel et al., 1999; Chapron et al., 2002b; Bazot et al., 2004a, 2009; Del Frate et al., 2006; Chami et al., 2009). The rationale of our study was to suggest that 5-mm thickness sagittal and axial T2-weighted MR images are not sufficient for the diagnosis of USL endometriosis. Moreover, thin-section oblique axial images (i.e. 3 mm thick and oblique to the long axis of the cervix) have been
shown to be useful in staging endometrial and cervical carcinomas by increasing extra myometrial and cervical extension. Nevertheless, no data exist on the contribution of this specific sequence to assess deep endometriosis (Shibutani et al., 1999; Shiraiwa et al., 1999).

Therefore, the aim of this study was to evaluate the contribution of the thin-section oblique axial MRI technique in the diagnosis of USL endometriosis in addition to conventional sagittal and axial MR images, with final surgical and histological correlation.

Materials and Methods

Our study was approved by our institutional review board, which waived the requirement for informed patient consent. Between September 2005 and May 2009, the MRI database was retrospectively reviewed to identify MRI examinations performed in women who had suspected pelvic endometriosis (n = 666).

In this study, only symptomatic patients (i.e. chronic pelvic pain, dysmenorrhea, dyspareunia or dyschezia) who underwent surgery with pathological correlation were included. In addition, only patients undergoing the conventional protocol [sagittal and axial turbo spin-echo (TSE) T2] in addition to thin-section oblique axial TSE T2-weighted MR images were included. We excluded women with previous surgery for deep endometriosis (i.e. resection of USL or rectosigmoid colon or vagina; n = 220); repeat MRI examinations (n = 60); absence of thin-section oblique TSE T2-weighted MR (n = 280). The final cohort included 100 patients (mean ± SD age, 33.9 ± 7 years).

MRI technique

MR images were acquired on a 1.5-T device. All the patients received an i.v. antispasmodic drug (Tiemonium methylsulfate; Visceralgine; Organon, Livron, France)—10 mg at the onset of the examination to decrease bowel peristalsis.

The protocol always included sagittal and axial TSE T2-weighted images, and axial TSE T1 or gradient echo T1 images with and without fat suppression (Fig. 1A and B). TSE T2-weighted sequence was acquired using the following imaging parameters: repetitive time (TR) = 4500 ms; effective echo time (TE) = 128 ms; echo train length = 23; number of excitations = 2 and slice thickness = 5 mm, gap = 100%, time acquisition: 1 min 48 s (sagittal) and 3 min 5 s (axial). T1-weighted spin-echo sequences were acquired using the following imaging parameters: TR = 600 ms; TE = 15 ms; and number of excitations = 2, time acquisition: 3 min 34 s. Fast low-angle shot sequences were acquired with and without fat-saturation technique to obtain T1 contrast, with breath-holding (13 ms) at a TR of 100 ms, a TE of 13 ms, flip angle of 65°, with one signal average and slice thickness = 5 mm, gap = 10%, time acquisition: 25 s (sagittal) and 27 s (axial).

All the patients underwent additional thin-section oblique axial TSE T2-weighted MR images (Fig. 1C) using the following imaging parameters: TR = 4500 ms; effective TE = 128 ms; echo train length = 23; number of excitations = 2 and slice thickness = 3 mm, gap = 100%, time acquisition: 3 min 10 s (Fig. 1C). The initial sagittal TSE T2-weighted scans were used to plan the thin-section oblique axial images. The axial oblique plane was located along one or both USL when visible on sagittal TSE T2-weighted MR images. The axial oblique plane was performed perpendicularly to the cervix when USL was not visible on sagittal TSE T2-weighted MR images (Fig. 2).

To limit the discomfort of the patient (time duration), we used commonly a gradient echo technique for obtaining T1-weighted MR images. All sequences were performed with anterior and posterior saturation bands placed anteriorly and posteriorly to eliminate the high signal from the subcutaneous fat.

MRI analysis

The MR images were analyzed by two radiologists (M.B. and A.G.), one with extensive gynecologic experience (more than 20 years) and one junior radiologist having <1 year of experience.

Both readers were blinded to clinical and ultrasonographic findings, and each reader was asked to determine the presence or absence of USL endometriosis (right, left or bilateral). The readers retrospectively and independently reviewed MR images in two steps separated by at least 3 weeks to minimize recall bias. In the first step, the readers reviewed sagittal and axial TSE T2-weighted MR images (conventional protocol). In the second step, the readers reviewed the combination of conventional and thin-section oblique MR images.

USL involvement in endometriosis was performed using a five-point scale to assign a confidence level for evaluation of the absence or presence of USL endometriosis: 1. definitely absent; 2. probably absent; 3. indeterminate; 4. probably present; 5. definitely present.

The diagnosis of normal USL was made when one or both ligaments were not visible or when they were thin and regular. The diagnosis of USL endometriosis was made when the ligament bore a nodule (regular or with stellate margins) or showed fibrotic thickening compared with the contralateral USL, with regular or irregular margins (Fig. 3A, B and C). The unilateral/bilateral nature of the involvement was noted.

The presence of associated posterior deep endometriosis lesions including rectosigmoid colon, vaginal or rectovaginal septum endometriosis was also noted (Fig. 4) in accordance with previously described criteria (Kinkel et al., 1999; Bazot et al., 2004a; Kataoka et al., 2005).

Surgical and pathologic findings (reference standard)

Laparoscopy and laparotomy were performed in 79 (79%) and 21 (21%) cases, respectively. All locations of endometriosis were recorded on surgical reports.

USL endometriosis was diagnosed in one of the following isolated or associated circumstances. First, when endometrial tissue (endometrial gland and stroma) was found at histological examination of one resected USL (Clement, 2002). Second, when direct visualization of the USL was possible at laparoscopy or laparotomy, associated with only fibrosis at biopsy, or without biopsy of the USL. In this case, USL endometriosis was diagnosed on the basis of the presence of another histologically proven location of endometriosis. Third, when complete cul-de-sac obliteration secondary to rectosigmoid colon endometriosis was observed, all the tissue that caused the obliteration was resected en bloc. Hence, we considered that USL endometriosis was present in association with other deep endometriotic locations.

Statistical analysis

Descriptive analysis was performed using non-parametric Mann–Whitney test for continuous variables and Fisher exact test for categorical or nominal variables. A \( P < 0.05 \) was considered statistically significant. Confidence level ratings of the images were also used to calculate the sensitivity, specificity, positive (PPV) and negative predictive values (NPV), accuracy and positive and negative likelihood ratios (including 95% confidence interval) of MRI were evaluated for each MR sequence in the diagnosis of USL endometriosis. Ratings of 1 or 2 indicated a reading of an absence of USL endometriosis; ratings of 4 or 5 indicated a reading of a presence of USL endometriosis. Ratings of 3 were considered to indicate an incorrect diagnosis, irrespective of the reference standard assessment for that lesion. The accuracy of the different sequences or combination was compared by using McNemar test two-tailed test. We hypothesized
that the combined modality would increase the diagnostic accuracy by 15%. Using a bilateral test, with $\alpha = 0.05$ and $1 - \beta = 0.8$, testing this hypothesis required between 97 and 136 patients, as accuracy for conventional MR is known to range between 65 and 75%.

The inter-observer agreement for the two radiologists for the diagnosis of USL endometriosis using different MR sequences was quantified by using weighted ‘statistics’; a $k$-value of $< 0.40$ was considered to represent a poor agreement; $0.40 – 0.80$ good agreement and $> 0.80$ excellent agreement.

**Results**

**Surgical and histological findings**

At surgery, 82 of 100 patients had at least one USL affected by endometriosis. One hundred and forty-seven USLs were considered involved at surgery (73.5%). USL endometriosis was bilateral, right, left in 65 (79.3%), 8 (9.7%) and 9 (10.9%) women, respectively. Forty-seven patients (57.3%) underwent USL resections including 32 (68%) bilateral, 6 (12.7%) right and 9 (19.1%) left USLs. *En bloc* resection (USL and/or rectosigmoid, vaginal and rectovaginal endometriosis) was performed in 20 patients. Fifteen patients having surgical USL involvement (bilateral $= 8$, right $= 3$ and left $= 4$) had resection of endometrial cysts without resection of associated deep endometriotic lesions.

At histology, surgical suspicion of USL endometriosis was confirmed in 45 women with both endometrial glands and stroma (89.4%), including 29 bilateral, 7 right and 9 left USL endometriosis.

Finally, we considered in this study that 145 (72.5%) USLs (right: 71, and left: 74) were involved by endometriosis. (In accordance with our

**Figure 1** Normal aspect of right and left uterosacral ligaments (USLs) (arrows) on sagittal (A), axial (B) and thin axial oblique (C) TSE T2-weighted magnetic resonance (MR) images from women with symptomatic endometriosis.
Comparison of senior and junior MRI analysis

A comparison of the assessment of MRI analyses by the two readers is provided in Table III.

Right USL endometriosis was easier to diagnose than left USL endometriosis, whatever the sequences used and the level of experience of the readers.

A good agreement between readers was noted for the diagnosis of all \( (k = 0.52) \) \( (0.32–0.66) \), right \( (k = 0.65) \) \( (0.48–0.77) \) and left \( (k = 0.41) \) \( (0.22–0.55) \) USL endometriosis when using conventional T2 MRI alone.

A good agreement between readers was noted for the diagnosis of all \( (k = 0.51) \) \( (0.26–0.68) \) and right \( (k = 0.67) \) \( (0.51–0.74) \) USL endometriosis when using a combination of conventional and oblique axial T2 MRI.

A poor agreement was noted for the diagnosis of left \( (k = 0.34) \) \( (0.16–0.47) \) USL endometriosis when using a combination of conventional and oblique axial T2 MRI.

Discussion

The present study demonstrates the additional value of thin-section oblique axial T2-weighted MRI when combined with conventional T2-weighted MRI for increasing the detection of USL endometriosis. In addition, thin-section oblique axial T2-weighted MR images were useful whatever the level of experience of the readers.

Endometriosis is a chronic, progressive and, in most cases, debilitating disease which is responsible for infertility and pelvic pain. Three main locations are distinguished including ovarian, peritoneal and deep endometriosis (Nisolle and Donnez, 1997). Ovarian and peritoneal endometrioses are commonly asymptomatic while chronic pelvic pain, dysmenorrhea, dyspareunia, dyschezia and dysuria reflect the presence of deep endometriosis (Fauconnier et al., 2002). In a recent study, Fauconnier et al. (2002) found a close relationship between specific symptoms and various locations of deep endometriosis. Several authors confirmed that deep dyspareunia seems to be related to USL endometriosis (Fauconnier et al., 2002; Fauconnier and Chapron, 2005; Bazot et al., 2009). Despite the presence of suggestive symptoms, a delayed diagnosis of pelvic endometriosis and especially USL endometriosis is common (Ballweg, 2004). This could partly be explained by the limited value of physical examination (Koninckx et al., 1996; Chapron et al., 2002a; Abrao et al., 2007; Hudelist et al., 2009). In our study, all the patients had symptoms explaining the high prevalence of USL endometriosis (80%). In contrast with other publications suggesting a higher frequency of left USL endometriosis (Chapron et al., 2001; Chapron et al., 2003), we found no significant difference in the prevalence of right and left USL endometriosis. This apparent discrepancy may be related to the high frequency of severe forms of pelvic endometriosis. Hence, bilateral USL involvement was frequently associated with other posterior deep endometriotic locations, especially involving rectosigmoid colon.

Over the last decades, transvaginal sonography (TVS) and MRI have been recommended to diagnose deep endometriosis (Bazot et al., 2003; Chapron et al., 2004; Kataoka et al., 2005; Abrao et al., 2007; Bazot et al., 2009; Piketty et al., 2009). Even though TVS is the first-line technique for examination of pelvic endometriosis, MRI seems to provide better evaluation for the assessment of USL involvement.
In a preliminary study including 20 patients, Kinkel et al. (1999) has suggested that MRI could detect normal USL and abnormal USL involved in endometriosis (Kinkel et al., 1999). These authors also suggested that the sensitivity was higher with T2-weighted MR images than with T1-weighted MR images (Kinkel et al., 1999). The mode of scanning used by other authors could explain the variation in results (Kinkel et al., 1999; Abrao et al., 2007; Chamie et al., 2009; Saba et al., 2009): in these studies, the protocol used included 5-mm slice thickness sagittal and axial T2- and T1-weighted MR images but did not evaluate the contribution of oblique axial T2-weighted MRI.

Our study strongly suggests that 5-mm thickness sagittal and axial T2-weighted MR images are not sufficient for the diagnosis of USL endometriosis. This finding could be partly explained by the anatomical aspect of the USL that comprise three different portions and directions. The first anterior and horizontal portion is located behind the cervix and vagina. The second median and descending oblique portion is located in front of the anterior and lateral part of the rectum. The last posterior and lateral ascending oblique portion is located in front of the posterior part of the rectum before ending at the sacrum (Buller et al., 2001; Umek et al., 2004; Touboul et al., 2008). These anatomical considerations support the use of thin-section oblique axial T2-weighted MR images.

Using the conventional protocol, junior and senior readers achieved diagnostic accuracies of 59–75% (left/right) and 69–76% (left/right), respectively. These results are lower than those in previous reports, showing accuracies of 80–85% (Bazot et al., 2004b, 2009). This apparent discrepancy could be explained by the absence of separate analysis of each USL in most studies (Bazot et al., 2004b, 2009). Indeed, the false conclusion that there is uterosacral endometriosis on the

Figure 3  (A) Right parasagittal TSE T2-weighted MR image showing a thin hypointense elusive area behind the cervix (indeterminate or confidence level 3 for both readers) (arrow). (B) Axial TSE T2-weighted MR image showing a thin hypointense area located at right USL, suggestive of USL endometriosis (probably present, or confidence level 4 for both readers) (arrow). (C) Thin axial oblique TSE T2-weighted MR image showing hypointense irregular thickening of right USL, which is typical of right USL endometriosis (definitely present or confidence level 5 for both readers) (arrow). Right USL endometriosis was found at surgery and confirmed at histology.
opposite side or on both sides will still produce a correct diagnosis. In our study, four right USL false-positive cases for both readers were misdiagnosed with opposite USL involvement present at surgery. Hence, if medical treatment is recommended, the differentiation between right and left endometriotic involvement in endometriosis is of limited importance. However, if surgery is required, there is a high risk of urinary dysfunction. Indeed, Dubernard et al. (2008) demonstrated that the risk of dysuria was significantly higher in patients after bilateral than unilateral sacral ligament resection. Therefore, this is particularly relevant to inform patients of the potential high risk of dysuria in the case of bilateral resection.

In most cases, the long axis of the cervix is not perpendicular to the imaging plane; therefore, axial images cannot provide a circumferential view of the cervix and upper vagina that is useful for the evaluation of USL. With regard to the limitations of sagittal and axial T2-weighted images, our data support the contribution of axial oblique MR sequence to increasing the detection rate of USL endometriosis for both readers. The significant difference in experience present between readers reinforces the value of such MR additional sequence. This increase in the detection rate is linked not only to the contribution of the oblique axial view but also to thin 3 mm sections that increase the in-plane resolution. In accordance with previous results using conventional or thin axial oblique section (Campbell, 1950), in our study left uterosacral endometriosis was more difficult to diagnose than right uterosacral endometriosis. The frequent location of the rectosigmoid colon in the left part of the pelvic cavity, hindering the left USL, can explain such a difference. This could also explain the low inter-observer agreement for the left USL (kappa = 0.34) whereas it was higher for the right USL (kappa = 0.67). The learning curve of MRI to assess the diagnosis of endometriosis may also explain such discrepancies. In accordance with Saba et al. (2009) the intra- and inter-observer agreement is suboptimal for the identification of endometriosis located in the USL.

Several limitations of our study must be underlined. First, only symptomatic patients with surgical evidence of deep endometriosis were included, so we cannot draw conclusions on the accuracy of MRI for diagnosing USL endometriosis in the general population. Second, the high prevalence of multiple deep endometriotic lesions is a possible source of bias but is linked to the specific recruitment policy of our department of gynecology. Third, owing to the retrospective nature of our study, only patients having thin-oblique sections were included, so patients were not consecutive and this represents another potential source of bias. Finally, the diagnosis of deep endometriosis was confirmed histologically in 50% of the patients. However, among the remaining cases a high proportion of patients exhibited fibrosis with muscle hyperplasia, ruling out the histological diagnosis of endometriosis related to the absence of a glandular component. This finding has been underlined by several authors and represents a limitation of histology, leading to a redefining of histological criteria for deep endometriotic lesions (Redwine and Wright, 2001; Darai et al., 2005).

**Figure 4** Axial TSE T2-weighted MR image demonstrating complete obliteration of pouch of Douglas with bilateral USL endometriosis associated with rectosigmoid colon and right pelvic wall involvement (arrows). At laparoscopy, all the tissue that caused the obliteration was resected en bloc.

**Table 1** Comparison of diagnostic performance regarding the detection of right and left USL endometriosis by readers with different levels of experience: senior reader (>20 years of experience) and junior reader (1 year of experience).

<table>
<thead>
<tr>
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<th>Senior reader</th>
<th></th>
<th>Junior reader</th>
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<tbody>
<tr>
<td></td>
<td>All sequences</td>
<td>Conventional</td>
<td>All sequences</td>
<td>Conventional</td>
</tr>
<tr>
<td>Right USL</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>TP–FP</td>
<td>66–08</td>
<td>51–04</td>
<td>58–06</td>
<td>51–05</td>
</tr>
<tr>
<td>FN–TN</td>
<td>05–21</td>
<td>20–25</td>
<td>13–23</td>
<td>20–24</td>
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<tr>
<td>Left USL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TP–FP</td>
<td>66–10</td>
<td>49–06</td>
<td>54–06</td>
<td>39–06</td>
</tr>
</tbody>
</table>

TP, true-positive; FN, false-negative; FP, false-positive; TN, true-negative; USL, uterosacral ligament.
All Sequences: combined use of conventional with oblique axial MRI.
Conventional: conventional T2 MRI (sagittal and axial).
In conclusion, thin-section oblique axial T2-weighted MRI can improve the success of conventional MRI for assessing USL endometriosis. However, further prospective studies are required to determine whether this additional MR sequence should be performed routinely in women with suspected pelvic endometriosis.

References


Ballweg ML. Impact of endometriosis on women’s health: comparative historical data show that the earlier the onset, the more severe the disease. Best Pract Res Clin Obstet Gynaecol 2004;18:201–218.


Table II Comparison of diagnostic performance regarding the detection of right and left USL endometriosis by senior reader and junior reader.

<table>
<thead>
<tr>
<th></th>
<th>Senior reader</th>
<th>Junior reader</th>
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<tbody>
<tr>
<td></td>
<td>All sequences</td>
<td>Conventional</td>
</tr>
<tr>
<td>Right USL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensitivity</td>
<td>0.93 (0.87–0.96)</td>
<td>0.71 (0.66–0.75)</td>
</tr>
<tr>
<td>Specificity</td>
<td>0.72 (0.59–0.80)</td>
<td>0.86 (0.72–0.94)</td>
</tr>
<tr>
<td>PPV</td>
<td>0.89 (0.84–0.92)</td>
<td>0.92 (0.85–0.97)</td>
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<tr>
<td>NPV</td>
<td>0.80 (0.66–0.90)</td>
<td>0.55 (0.46–0.60)</td>
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<tr>
<td>Accuracy</td>
<td>0.87 (0.79–0.91)</td>
<td>0.76 (0.67–0.80)</td>
</tr>
<tr>
<td>Pos. LR</td>
<td>3.37 (2.16–5.02)</td>
<td>5.20 (2.38–13.0)</td>
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<tr>
<td>Neg. LR</td>
<td>0.09 (0.04–0.20)</td>
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<tr>
<td>Left USL</td>
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<tr>
<td>Sensitivity</td>
<td>0.89 (0.83–0.93)</td>
<td>0.66 (0.60–0.70)</td>
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<tr>
<td>Specificity</td>
<td>0.61 (0.46–0.73)</td>
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<tr>
<td>PPV</td>
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<tr>
<td>NPV</td>
<td>0.66 (0.50–0.79)</td>
<td>0.44 (0.35–0.51)</td>
</tr>
<tr>
<td>Accuracy</td>
<td>0.82 (0.74–0.88)</td>
<td>0.69 (0.60–0.74)</td>
</tr>
<tr>
<td>Pos. LR</td>
<td>2.31 (1.57–3.49)</td>
<td>2.86 (1.54–6.01)</td>
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<tr>
<td>Neg. LR</td>
<td>0.17 (0.09–0.34)</td>
<td>0.43 (0.33–0.64)</td>
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</table>

PPV, Positive Predictive Value; NPV, Negative Predictive Value; Pos. LR, Positive Likelihood Ratio; Neg. LR, Negative Likelihood Ratio; USL, uterosacral ligament; Conventional: Sagittal and Axial MR images; All sequences: combination of Conventional and thin-section Oblique Axial MR images. Data are mean (95% confidence interval).

Table III Results of senior and junior reader analyses for the diagnosis of USL endometriosis using conventional MRI alone and conventional plus oblique axial MRI.

<table>
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<th>Conventional MRI + Oblique axial MRI</th>
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<td></td>
<td>Nb. correct</td>
<td>Nb. misclassified</td>
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<tr>
<td>Conventional MRI</td>
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</tr>
<tr>
<td>Senior reader (right/left)</td>
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<td>14/18</td>
</tr>
<tr>
<td>Nb. correct</td>
<td>71/64</td>
<td>15/18</td>
</tr>
<tr>
<td>Nb. misclassified</td>
<td>5/5</td>
<td>9/13</td>
</tr>
<tr>
<td>Total</td>
<td>76/69</td>
<td>24/31</td>
</tr>
<tr>
<td>Junior reader (right/left)</td>
<td>75/58</td>
<td>25/42</td>
</tr>
<tr>
<td>Nb. correct</td>
<td>66/54</td>
<td>11/17</td>
</tr>
<tr>
<td>Nb. misclassified</td>
<td>9/4</td>
<td>14/25</td>
</tr>
<tr>
<td>Total</td>
<td>75/58</td>
<td>25/42</td>
</tr>
</tbody>
</table>

Nb, number.
Magnetic resonance imaging and endometriosis


