

# Diagnostic accuracy of pelvic MRI in deep infiltrating endometriosis

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## INTRODUCTION

Endometriosis is a gynaecologic condition characterised by the presence of endometrial tissue outside the uterine cavity.

Adequate pre-operative work-up is essential for planning a multidisciplinary surgical treatment.

MRI is a non-invasive method with high spatial resolution that allows for the evaluation of adnexal and extra-adnexal endometriosis.

## OBJECTIVE

To determine if pre-operative staging of patients with suspected severe endometriosis with MRI scan is consistent with surgical findings.

## METHODS

- Retrospective study of all patients with severe endometriosis who underwent surgical treatment between August 2015 and August 2016.
- All patients with suspected severe endometriosis underwent pre-operative staging with MRI and the results discussed in our monthly multidisciplinary meeting attended by a team of gynaecologist, specialist gynaecology radiologist, urologist, colorectal surgeon and the endometriosis nurse specialist.
- The findings is compared to the operative findings at laparoscopy.
- MRI images of the anterior, middle and posterior pelvic compartments were assessed.
- Findings were matched with surgical and histological confirmation of endometriosis.

## RESULTS

- 44 patients were included.
- 25/26 endometriomas found on MRI were confirmed at laparoscopy.
- Bowel endometriosis was confirmed in all cases (13/13).
- Bladder endometriosis were (4/7) and ureteric involvement were (6/8) cases.
- Overall, MRI was highly accurate compared with operative findings with a sensitivity, specificity, positive and negative predictive value of 88.9%, 96.9%, 92.3% and 95.4% respectively.

Correlation between MRI and Surgical Findings			
Observations		MRI	Surgery
Endometriomas	Present	25	26
	Absent	19	18
Bowel involvement	Yes	13	13
	No	31	31
Bladder involvement	Yes	4	7
	No	40	37
Ureteric involvement	Yes	6	8
	No	38	36

## CONCLUSION

- Results show a high sensitivity, specificity and accuracy of preoperative assessment with MRI to identify and stage the severity of endometriosis.
- Recognition of the extent of disease will allow appropriate pre-surgical planning, type of surgery and surgeon, counselling on the benefits, risks and expectation, theatre time and allocation of resources.

## REFERENCES

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