



Ureteral Position and Broad Ligament Recess



Dan C. Martin, MD, Trenia Webb, MD and Ronald E. Batt, MD

University of Tennessee Health Science Center, Memphis, Tennessee

School of Medicine and Biomedical Sciences, University at Buffalo, The State University of New York

The 9th World Congress on Endometriosis, Maastricht, The Netherlands, 14-17 September, 2005

INTRODUCTION

Medial deviation of the ureter has been associated with endometriosis, broad ligament recess, peritoneal pockets, sciatic hernia, inguinal hernia, retroperitoneal fibrosis, rectal resection, bladder distention and horseshoe kidney.

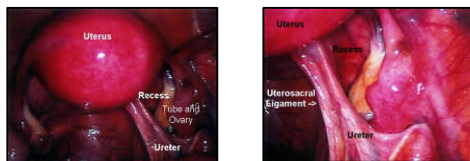
This study confirmed the clinical diagnosis of medial ureteral deviation in 5 of 8 patients. In 3 patients, the ureter followed a normal course along the border of a high broad ligament recess. The recess created the appearance of medial ureteral deviation.

OBJECTIVE

The purpose of this presentation is to clarify the position of ureters associated with broad ligament recesses. It also notes the occurrence of broad ligament recess and/or anatomic variants on either side of the ureter in 3 patients.

MATERIALS AND METHODS

Eight patients were surgically diagnosed as having broad ligament recesses associated with endometriosis and ipsilateral medial deviation of the ureter. The photo documentation of these cases was reviewed to clarify the findings.



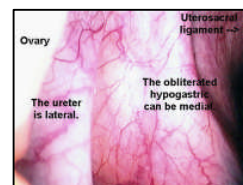
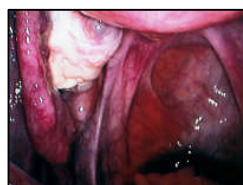
The right tube and ovary lie within the broad ligament recess. The ureter is adjacent to the uterosacral ligament.

RESULTS

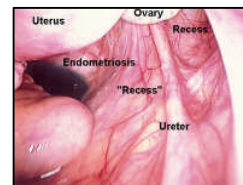
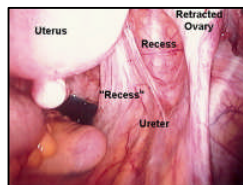
6 patients had a right unilateral recess, one had a left unilateral recess and one had bilateral recesses. 5 of the 8 had medial deviation of the ureter on review of the photo documentation. The patient age range was 14 to 42 with a mean of 26.5 years.

The ureter was located in the lower third of the broad ligament in five patients. In two patients, it was located on or immediately adjacent to the uterosacral ligament. The ureter was in the middle third of the broad ligament in the other three patients.

The ureter was the medial border of a recess in all cases. A small "recess" or anatomic variant medial to the ureter was seen in three patients associated with a lateral recess.



The obliterated hypogastric artery can be near the ureter and can be misidentified as the ureter.



The small "recess" medial to the ureter is best seen when the ureter is contracting.

DISCUSSION

Medial deviation of the ureter has been associated with endometriosis, broad ligament recess, peritoneal pockets, sciatic hernia, inguinal hernia, retroperitoneal fibrosis, rectal resection, bladder distention and horseshoe kidney.

The relationship of recesses, as discussed in this presentation, to similar cases published as sciatic hernia is not clear. A medial position of the ureter is present in both entities.

This study confirms the clinical diagnosis of medial deviation of the ureter in 5 of 8 patients. The other three had a prominent ureter as the medial border of a large recess that created the appearance of medial deviation of the ureter.

An associated medial "recess" may also be classified as a minor anatomic variant associated with the large primary broad ligament recess

CONCLUSIONS

Medial deviation of the ureter was seen in 5 of 8 women with large peritoneal recesses associated with endometriosis. The ureter was found on the medial border of a recess in all 8 women. It divided the recesses when there were two recesses.

A combination of medial deviation of the ureter and large broad ligament peritoneal recess was seen as early as 14 years of age. Studies on congenital and/or acquired development of endometriosis will require prospective observations in premenarcheal adolescents and postmenarcheal adolescents as well as in adults.

Attention to ureteral position may decrease injury to this organ during pelvic surgery.