

2022 Consensus Statement on Uterine Masses: Workload Implications for the Gynaecology MDT



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Objectives

To assess the impact of the 2022 Radiology consensus statement on MRI evaluation of uterine masses on the gynaecology MDT workload - a review of the experience of a regional fibroid centre before and after the consensus statement guidance was implemented.

Methods

All patients referred to the gynaecology MDM for discussion of indeterminate/suspicious fibroids during a 6-month period in 2022 prior to the implementation were compared with patients during a 6-month period in 2024. Number of cases discussed, outcomes and management plans were recorded and imaging reviewed. Histopathology where available was correlated.

Number of cases discussed at MDT			Management outcomes of cases of			Histopathology (when available)		
	2022	2024	indeterminate fibroid discussed at MDT			2022	2024	
				2022	2024	Leiomyoma	6	9
Total number of patients discussed at MDT	409	319	Hysterectomy	5/10 (50%)	10/21 (47.6%)	Sarcoma	0	3
						Fibroma	1	1
Number of indeterminate fibroid cases discussed	10	21	Myomectomy	1/10 (10%)	9/21 (43%)	Other	0	1
			Uterine artery	1/10 (10%)	0	DWI Sequence		
Number of cases of	24%	66%	embolization				2022	2024

Results

indeterminate fibroids			
discussed as a			
percentage of total			
cases discussed			

Surveillance	2/10 (20%)	2/21 (10%)
Lost to follow up	1/10 (10%)	0

Performed	2/9	21/21
Not performed	7/9	0/21

Discussion

The 2022 consensus statement highlights five imaging features strongly associated with uterine sarcoma: peritoneal disease, abnormal lymphadenopathy, intermediate to high signal on T2-weighted imaging, high signal on high b-value DWI, and low signal intensity (<0.9 \times 10⁻³) on the corresponding ADC map. Key benign mimics include cellular fibroids, which may exhibit restricted diffusion due to increased cellularity, and degenerating fibroids, which may demonstrate central necrosis resembling malignancy.

Our review shows that implementation of the consensus statement more than doubled the number of indeterminate fibroid cases discussed at MDT over a six-month period. The use of DWI in these cases also increased from 22% in 2022 to 100% in 2024. This reflects a notable shift in imaging practice, contributing to increased radiologist workload and potentially influencing management decisions, favouring myomectomy or hysterectomy over uterine artery embolization. While the statement has enhanced confidence in reporting and improved sensitivity for detecting atypical and malignant uterine lesions, it has also arguably led to a reduction in specificity for malignancy. Our rate of pick-up of uterine sarcomas increased following implementation of the consensus statement, with 3 histologically proven sarcomas identified in 2024 compared to 0 in 2022, allowing for the limitations of small sample size.

Case 1: Endometrial stromal sarcoma



Images left to right: (1 & 2) Sagittal and axial T2 images demonstrate a rounded T2 intermediate signal mass indenting the endometrial cavity. (3) A focus of capsular breach (arrowed) is high signal on the high B value DWI. ADC of this region was $<0.9 \times 10^{-3}$ (not shown).

Case 2: Uterine leiomyosarcoma



Images left to right: (1) Axial T2 image shows an intermediate T2 uterine mass extending into the endometrial cavity, reported as an intracavitary fibroid. (2) MRI 14 months later demonstrates significant growth, an area of capsular breach (solid arrow) and a new focal lesion in the cervix (dashed arrow). (3) Diffusion of restriction within the mass with ADC values $< 0.9 \times 10^{-3}$.



Leiomyoma variants that mimic sarcoma



Cellular fibroid. Intermediate/high T2 signal with areas of significant restricted diffusion.

Degenerating leiomyoma. Note the areas of high T2 and DWI signal with corresponding low ADC values.

Case 3: Uterine leiomyosarcoma



Images left to right: (1) Sagittal T2 imaging demonstrates a lobulated T2 intermediate and high signal mass (2) & (3) The mass demonstrates significant restriction of diffusion and areas of ADC $< 0.9 \times 10^{-3}$.

Conclusion

MRI protocol has changed following the consensus statement to include DWI as routine in fibroid evaluation. The proportion of patients discussed at MDM for fibroid evaluation has increased, with potential workload implications for the MDT and further management options. The consensus statement has resulted in improved confidence in reporting of uterine masses, as well as increased sensitivity for detecting atypical and malignant uterine lesions.