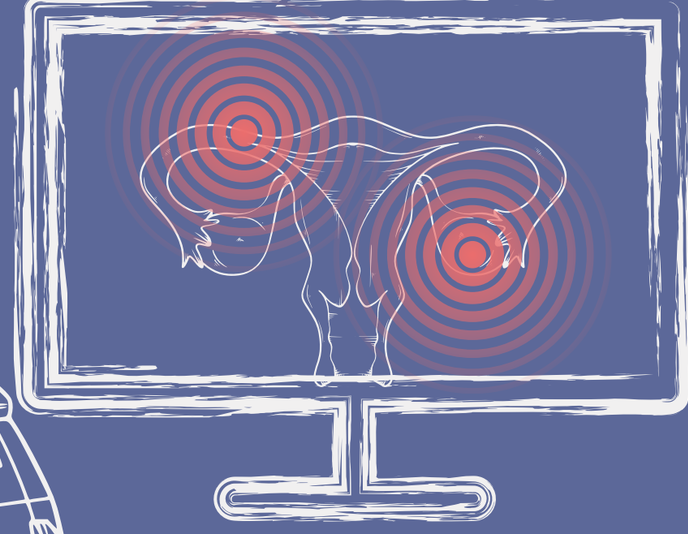
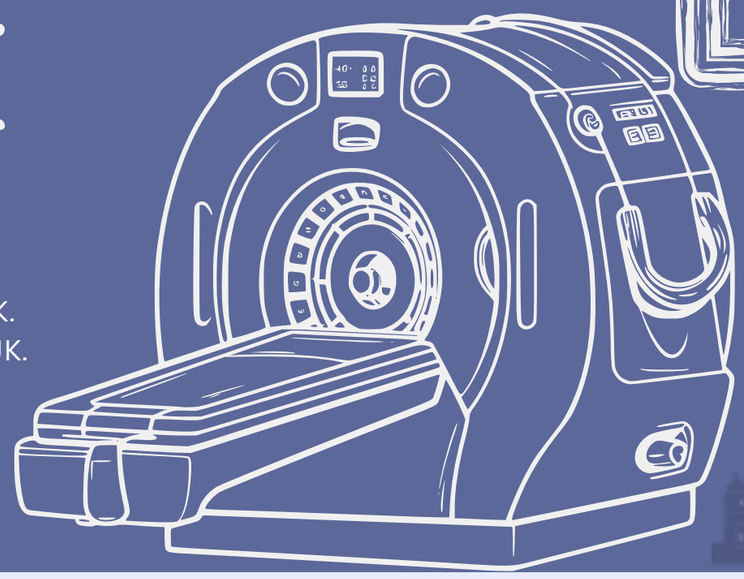
SPECT-CT DETECTION OF ENDOMETRIOSIS SUBTYPES USING 99mTc-MARACICLATIDE

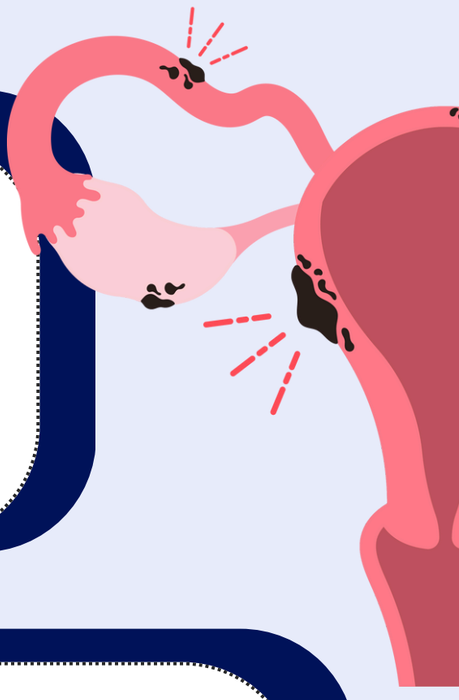




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THE UNMET DIAGNOSTIC NEED:

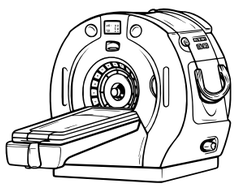
- The detection of superficial disease is a recognised limitation of existing imaging modalities (1).
- The monitoring of imaging advancements for the application of endometriosis has been highlighted as a global endometriosis research priority (2).
- Given the success of SPECT-CT imaging with 99mTc-maraciclatide in detecting rheumatoid arthritis, we are conducting an exploratory study to assess its application to endometriosis (3).
- 99mTc-maraciclatide binds with a high affinity to αvβ3, the most commonly researched angiogenic integrin.



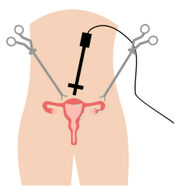
THE DETECT STUDY:



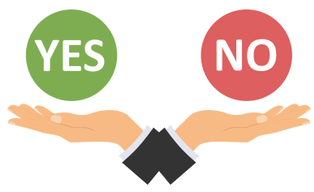
Population: 20 patients with suspected or confirmed endometriosis.



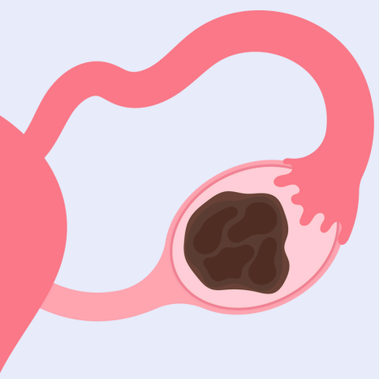
Investigation: SPECT-CT with a novel imaging marker, 99mTc-maraciclatide.



Comparator: Planned laparoscopy 2-7 days later.



Outcome: Correlation between scan and surgical regions of interest.



PROGRESS: RECRUITMENT AND DIAGNOSTIC HITS

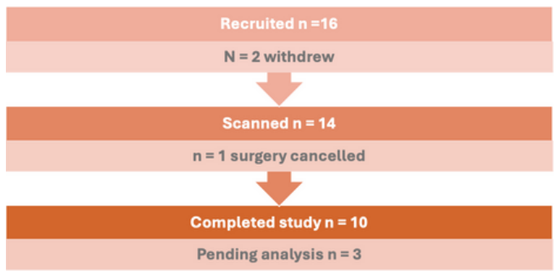


Table 1: DETECT recruitment flowchart

Characteristics of included patients (n = 10)	Range or Number of patients
Age	22-42
Prior surgical diagnosis of endometriosis	6
Exogenous hormones at the time of the scan	4
Proliferative phase at the time of the scan*	2
Secretory phase at the time of the scan*	4

Table 2: DETECT patient characteristics in the 10 patients with complete data.*in those not on exogenous hormones.

Completed Study: N = 10 patients		
	Laparoscopy -ve	Laparoscopy +ve
Maraciclatide +ve	0	6
Maraciclatide -ve	2	2

Table 3: 99mTc-maraciclatide and laparoscopy correlation, in detecting disease (red, blue or mixed superficial lesions, endometriomas and deep disease) in 10 patients. Green indicates a diagnostic match. Note: one negative match was on GnRH-a.



PROGRESS: SUBTYPE EVALUATION



ENDOMETRIOMA | DEEP DISEASE | SUPERFICIAL DISEASE

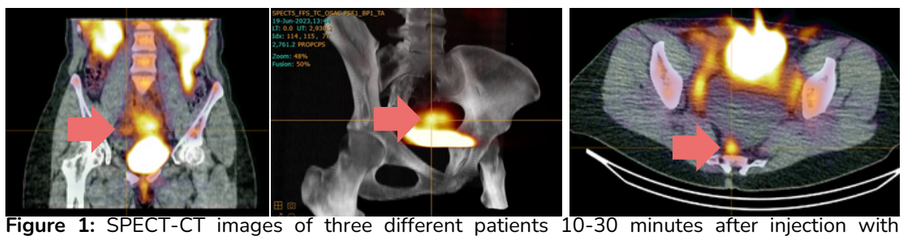


Figure 1: SPECT-CT images of three different patients 10-30 minutes after injection with 99mTc-maraciclatide. The arrows indicate detected disease which was later confirmed on laparoscopy. (a) endometrioma, (b) deep disease in the sigmoid colon, and (c) superficial disease in the pouch of Douglas.

Completed Study: N = 10 patients	
	No. of patients with disease subtype seen with ^{99m}Tc-maraciclatide
Superficial disease	4
Deep disease	1
Endometrioma	1

Table 4: The number of disease subtypes accurately detected in the 10 patients who have completed the study.



CONCLUSION & NEXT STEPS

- Preliminary findings suggest that detecting angiogenic integrins could aid in the non-invasive detection of endometriosis and could help address the challenges of detecting superficial disease.
- Data collection and analysis will continue.
- A phase 3 study is being designed.

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1) Becker CM et al. (2022). ESHRE Endometriosis Guideline Group, Human Reproduction Open, 2022(2)
2) Rogers PA et al. (2017). WES/WERF Consortium for Research Priorities in Endometriosis. Reprod Sci. 24(2):202-226.
3) Attipoe L et al. (2021). Imaging Neoangiogenesis in Rheumatoid Arthritis II (INIRA II): Whole-body Synovial Uptake of 99mTc-Maraciclatide Correlates with Power Doppler Ultrasound and Serum Neoangiogenic Biomarkers. American Coll. Of Rheum. ARC Convergence 2021. Abstract no: 0174