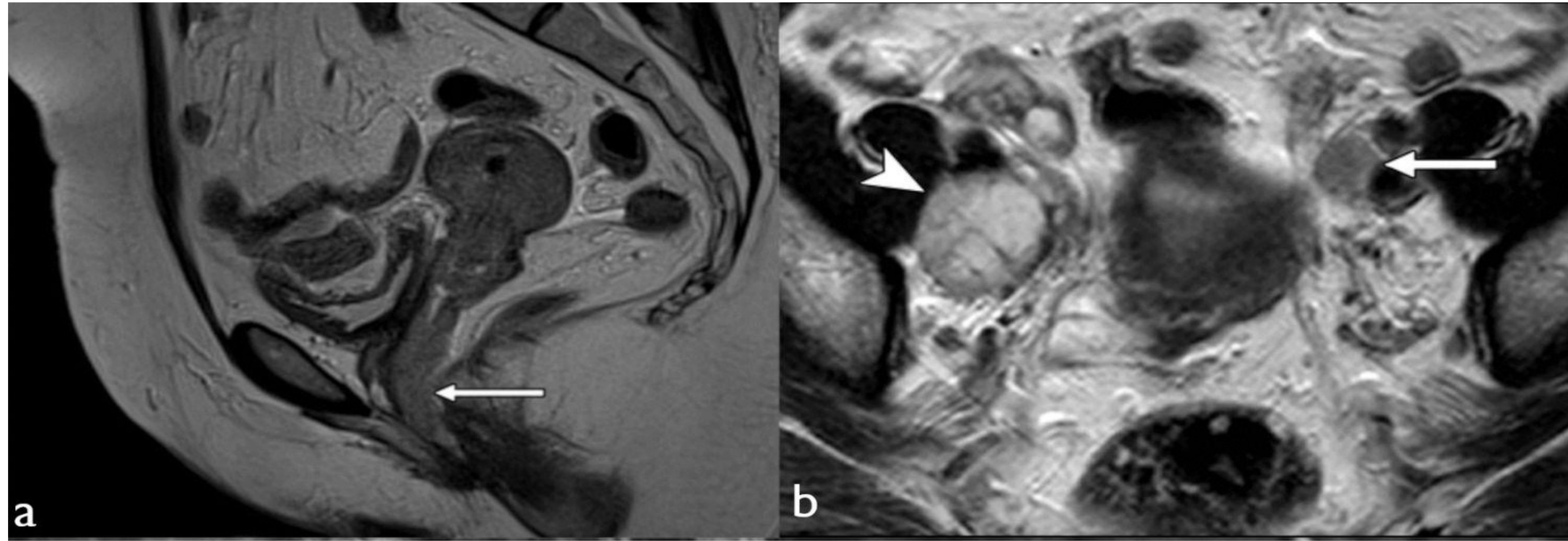# Reproducibility of FIGO 2018 classification of cervical cancer

A comparative survey of the reproducibility of the 2018 FIGO classification of cervical cancer based on the reported finds from pretherapeutic radiology diagnostics.

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T2 weighted MRI of FIGO 2018 stage IIIA cervical cancer depicting mass on cervix (image a arrow) and extension into myometrium and vagina (image b arrows).

OVERVIEW

Cervical cancer is staged according to the International Federation of Gynecology and Obstetrics (FIGO) staging system. A revision of the staging criteria was undertaken in 2018, with one of the major changes being the incorporation of radiological imaging in the pretherapeutic staging assignment.

The aim of this study was to evaluate the interobserver agreement when interpreting the finds from radiology reports to assign a 2018 FIGO stage in cervical cancer.

Results showed that agreement was substantial. The main source of variability was differing interpretations of the diagnostic confidence expressed in the free-text radiology reports.

AIM

Radiological diagnostics have been shown to improve the accuracy of cervical cancer staging in comparison to clinical staging alone. Pretherapeutic diagnostic imaging by magnetic resonance imaging (MRI) and positron emission tomography-computed tomography (PET-CT) is commonly performed on cervical cancer patients with large tumour size based on clinical assessment.

The findings are described in an imaging report that is interpreted by the clinician to assign a pretherapeutic FIGO stage. With the incorporation of radiology diagnostics in the staging of cervical cancer, it is imperative that the clinician can reliably interpret the radiological finds. The aim of this study was therefore to examine the interobserver agreement when interpreting the radiology reports to assign a FIGO stage according to the 2018 classification criteria.

METHOD

This retrospective study included 111 patients admitted to Haukeland University Hospital with histologically verified cervical cancer and pretreatment pelvic MRI and PET-CT from May 2002 to December 2017. Two medical students independently reviewed the radiology reports to ascertain a cervical cancer stage according to the 2018 FIGO staging parameters. The interobserver agreement between the students was calculated using Kappa coefficients (κ).

RESULTS

The overall pairwise agreement between the students as measured by Cohen's weighted kappa was 0.70. The main source of variability was attributed to student interpretation of ambiguous language used to convey diagnostic confidence. Other sources of variability included student error and student misinterpretation of the classification criteria.

CONCLUSION

Whilst the interobserver agreement was found to be substantial, disagreement did exist due to differences in interpretation of the conveyed diagnostic confidence. Further evaluation of the interpretation of the language used to describe uncertain radiological finds may identify how communication in radiology reports can be improved to ensure appropriate staging and optimal therapeutic planning for cervical cancer.

Crosstabulation of FIGO 2018 staging results for student 1 and student 2 showing interobserver agreement and disagreemet

		Student 1 2018 FIGO Stage										
		IB1	IB2	IB3	IIA1	IIA2	IIB	IIIC1	IIIC2	IVA	IVB	Total
Student 2 2018 FIGO Stage	IB1	8	1	0	0	0	2	0	0	0	0	11
	IB2	0	7	0	1	0	4	0	0	1	0	13
	IB3	0	0	2	0	2	6	0	0	0	0	10
	IIA1	0	0	0	5	0	2	0	0	0	0	7
	IIA2	0	0	1	0	1	0	0	0	1	0	3
	IIB	0	0	1	0	0	5	0	0	3	0	9
	IIIC1	1	0	0	1	0	1	28	0	2	1	34
	IIIC2	0	0	0	0	0	0	0	7	0	0	7
	IVA	0	0	0	0	0	0	0	1	9	1	11
	IVB	0	0	0	0	0	0	0	0	1	5	6
Total		9	8	4	7	3	20	28	8	17	7	111

REFERENCES

Image :
Salib MY, Russell JHB, Stewart VR, Sudderuddin SA, Barwick TD, Rockall AG, et al. 2018 FIGO Staging Classification for Cervical Cancer: Added Benefits of Imaging. Radiographics. 2020;40(6):1807-22.

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