

routinely applied 48 hours before the operation, according to the guidelines published by health authorities since June 2021. **Conclusion*** There is no 'one size fits all' approach to cancer treatment during the COVID-19 pandemic, and there are no international guidelines. Screening and treatment decisions should often be made on a case-by-case basis and often depend on the COVID-19 situation in a single community and the availability of resources. Our study results shows that it can be done safely, even in the pandemic, when strict adherence to Covid 19 precautions for both patients and healthcare workers .

379 DOWNREGULATING KIF4A SIGNIFICANTLY SUPPRESSED GROWTH OF UTERINE LEIOMYOSARCOMA

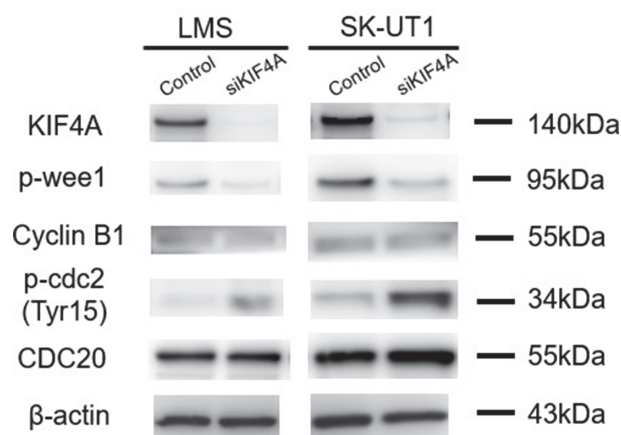
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Introduction/Background* Uterine leiomyosarcoma (LMS) is notorious for its poor prognosis. New therapeutics strategy for LMS is mandatory. Kinesin family member4A (KIF4A) is a member of the kinesin4 subfamily and plays an important role in cell division. In recent years, KIF4A is revealed to plays significant roles in some cancers with tumor proliferation. The aim of this study is to investigate the role of KIF4A in LMS.

Methodology To identify novel biomarkers of LMS, we performed shotgun proteomics of one normal human uterine smooth muscle cell line (UtSMC) and three LMS cell lines, SK-LMS, SKN and SK-UT1, using isobaric tags for relative and absolute quantitation (iTRAQ). Cell variability was evaluated by MST-8 assay in original LMS cells and KIF4A suppressed cells with siRNA in vitro. For evaluation of proliferation in vivo, we established KIF4A knockdown cell lines using shRNA and injected them subcutaneously to 6weeks ICR nude mice and evaluated changes in tumor size over time. To elucidate the mechanism, we performed cell cycle analysis by fluorescence-activated cell sorting (FACS) and western blotting.

Result(s)* A total of 2084 proteins were identified using iTRAQ. KIF4A was identified as a protein with more than twice the expression level of normal smooth muscle cells. By western blotting, all three LMS cell line had expressed KIF4A. KIF4A downregulation significantly suppressed the growth of those cell lines in vitro (-37.2±4.73% in SK-LMS, -87.7±4.02% in SKN and -28.1±3.00% in SK-UT1, $p<0.05$). By FACS, the percentage of G2/M phase cells was significantly



Abstract 379 Figure 1 The expression of proteinsinvolved in G2/M checkpoint

increased in KIF4A suppressed SK-LMS and SK-UT1 and by western blotting, p-cdc2 was upregulated in KIF4A suppressed cells (figure 1). It was suggested that KIF4A downregulation induced G2/M arrest by inhibiting dephosphorylation of cdc2. Also in vivo, downregulation of KIF4A was found to significantly suppress tumor size ($1186\pm118\text{mm}^3$ vs $461\pm84\text{mm}^3$ in SK-LMS and $1704\pm441\text{mm}^3$ vs $514\pm230\text{mm}^3$ in SK-UT1, $p<0.05$, figure 2).

Conclusion* We identified a novel expressed protein, KIF4A, which can be a therapeutic target for uterine leiomyosarcoma.

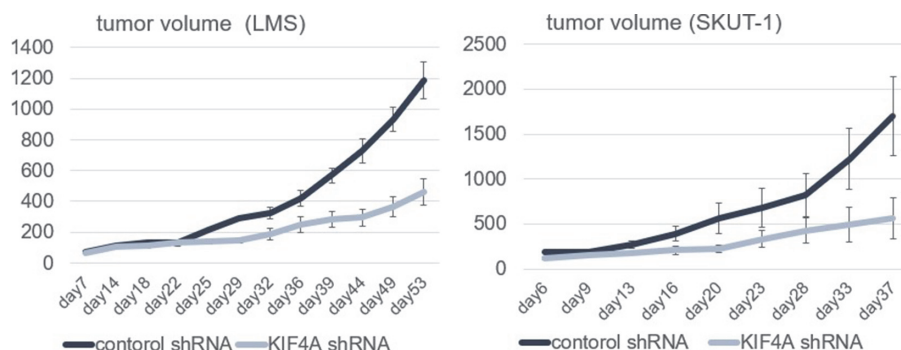
392 PULMONARY EMBOLISM IN GYNECOLOGIC ONCOLOGY

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Introduction/Background* All surgeons are in concern for thromboembolic events especially following a major operation for cancer. The aim of this audit is to report the incidence of PE in our oncology department, to identify risk factors and help us design future studies in order to reduce the incidence of PE and provide the best healthcare services in our patients.

Methodology The Metaxa anti-cancer hospital database was reviewed to identify patients who had surgery performed for gynecologic malignancy from March 2019 to March 2021.



Abstract 379 Figure 2 The effect of suppressing growth in vivo

Age, BMI, smoking status, final pathologic diagnosis, FIGO stage, surgical procedure(s) were recorded.

Result(s)* We identified 174 patients who had gynecologic surgery for malignancy between March 2019 and March 2021 in our department. The incidence of PE among these patients was 4% (7/174) (table 1).

Within the cohort of minor cases, 2 of 64 (3.1%) developed PE in the postoperative period. Within the cohort of major cases 5 of 110 (4.5%) developed PE. Among 110 cancer patients with major procedure, 38 of them temporally interrupted LMWH day 0 and 72 of them did not. 2 of the first group and 3 of the second developed PE (2/38=5.2% vs

3/72=4.1 respectively). Most of the cases of PE developed in patients with high stage ovarian cancer with BMI>30 (table 2).

Conclusion* Gynecologic oncology patients who had abdominal surgery have higher risk of venous thromboembolism. Ovarian cancer patients are in greater danger among the rest.

As far as the interruption of prophylactic thromboembolic dose of LMWH the Day 0 seems to have no increased risk in PE development but in order to conclude safer results we need to design a randomized control trial to compare the two arms.

Abstract 392 Table 1 Characteristics of oncologic patients diagnosed with PE

No of PE	Age	BMI	Smoker (PY)	Comorbidities	Diagnosis	FIGO Stage	Severity of Abdominal Surgery	LWMH Interruption Day 0	Patient position During Op
Case 1	82	31,2	No	Arterial Hypertension	Uterine Sarcoma	IIA	Minor	+	Low Lithotomy
Case 2	73	34,9	<5PY	Arterial Hypertension	Ovarian Cancer	IIIC	Minor	-	Supine
Case 3	51	20	25	None	Endometrial Cancer	IIIC1	Major	+	Low Lithotomy
Case 4	44	34,6	25	None	Ovarian Cancer	IIIA	Major	-	Supine
Case 5	52	32,1	No	None	Ovarian Cancer	IIIC	Major	-	Supine
Case 6	63	29.2	40	None	Ovarian Cancer	IIIC	Major	-	Supine
Case 7	67	27,9	No	Arterial Hypertension-Diabetes 2	Ovarian Cancer	III	Major	+	Low Lithotomy

PY: packet years, Op: operation

Abstract 392 Table 2 Allocation of PE events in relationship with Final Diagnosis, BMI and FIGO stage

Final Diagnosis			BMI<30				BMI>30			
			FIGO Stage I-II		FIGO Stage III-IV		FIGO Stage I-II		FIGO Stage III-IV	
	Cases	PE(+)	PE(-)	PE(+)	PE(-)	PE(+)	PE(-)	PE(+)	PE(-)	PE(+)
Uterine Cancer	71/174	1/71	25	0	5	1	34	0	6	0
Ovarian Cancer	51/174	5/51	10	0	12	1	9	0	15	4
Cervical Cancer	22/174	0/22	19	0	2	0	1	0	0	0
Vulvar Cancer	15/174	0/15	10	0	0	0	3	0	2	0
Uterine Sarcoma	9/174	1/9	2	0	1	0	2	1	3	0
Fallopian Tube Cancer	1/174	0/1	0	0	0	0	0	0	1	0
Other	5/174	0/5	2	0	2	0	0	0	1	0
Total	174	7	68	0	22	2	49	1	28	4

In order to reduce PE risk we also need to analyze the data from MeThos trial, in which our department participates and it is still running.

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SOCIUS MENTORING – A NOVEL PROGRAM TO ENCOURAGE AND PREPARE MOTIVATED STUDENTS FOR A CAREER AS SURGICAL ONCOLOGISTS

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Introduction/Background* The shortage of physicians poses increasing challenges to surgical oncological disciplines. Formerly motivated students lose their interest in surgery during their studies or during their practical year. To counteract this development, students need to be more strongly and sustainably inspired for surgery and equipped with important abilities to deal with the various challenges during their early career. The Surgical Oncology Curriculum for the individual support of ambitious students (SOCIUS) is intended to address precisely this issue. Upon completion of the program, students should be optimally prepared for careers in university surgical oncology medicine and excel in specific skills.

Methodology SOCIUS Mentoring was founded as a joint project of gynecology, urology and visceral surgery to prepare motivated students for a surgical university career through individual mentoring and training of surgical skills and soft skills. Therefore, a structured curriculum of six modules (80 hours) was developed. These modules consisted of the following: Mentoring by a senior physician; practical surgical skill training (suturing, laparoscopy, robotic surgery); soft skill

training (presentation and negotiation skills, statistical literacy); theoretical skill training (in all three disciplines); clinical observations; participation at a scientific meeting. Effects on physician skills and student attitudes toward surgery were determined by questionnaires

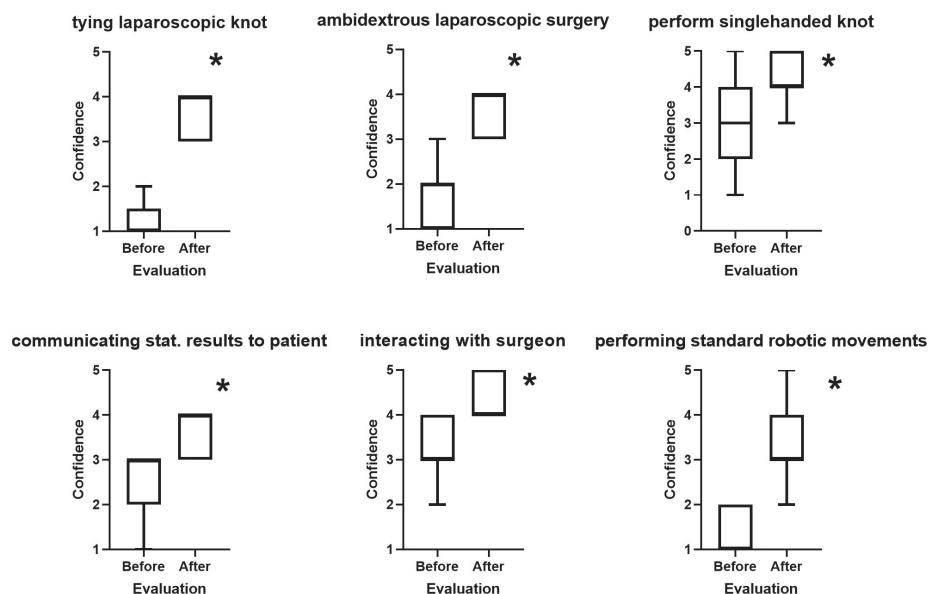
Result(s)* Students significantly improved their surgical skills and soft skills. This was documented by increased confidence scores (figure 1) and improved scores in simulator training. In addition, students reported that they have specified their career goals and gained more confidence in surgery, as well as seeing more development potential in a surgical career (figure 2). Satisfaction with the program was also reflected in the absolute recommendation rate of the course to friends (MW 5.0, scale 1-5).

Conclusion* With this study, we describe the first successful implementation of an extracurricular program targeted at highly motivated students that combines individual mentoring with surgical and soft skills training. Individual support of students through a combination of mentoring and skills training is a promising way to prepare and motivate students for their residency in surgical disciplines and thus to counteract the shortage of young talent in surgical disciplines.



Abstract 394 Figure 2

How confident are you (students) with ...



* p<0.05

Abstract 394 Figure 1