Methodology We performed a randomized controlled study. Patients with HSIL aged 18–40 years were included and treated with either imiquimod, 3 times per week for 16 weeks (experimental arm), or with LLETZ (control arm). Treatment success was evaluated by regression to low-grade SIL (LSIL) 20 weeks after initiation of the treatment in the experimental arm and by negative cytology 6 months after LLETZ in the control arm. Secondary outcome was occurrence of the side effects during and after treatment. Statistical analysis was performed using SPSS Statistics Programme. Statistical significance was set at p -value<0.05.

Results We included 104 patients. In the experimental arm, 43 out of 52 patients (82.7%) completed treatment, while in the control arm, all of the 52 patients received the planned treatment (100%). Treatment with imiquimod was successful in 62.8% and treatment with LLETZ in 75.0%, the difference was not statistically significant (p -value=0.288). When evaluating treatment success in the intermediate risk subgroup (patients with cervical intraepithelial neoplasia grade 2 – CIN 2), there were also no statistically significant differences between groups (p -value=0.366). However, LLETZ was significantly more successful in patients with CIN 3 lesions (p -value=0.012). We did not observe any cases of progression of the precancerous disease to cancer. Side effects and severe side effects were significantly more prevalent in the imiquimod than in the LLETZ group (88.5% vs. 44.2% (p -value<0.001) and 51.9% vs. 13.5% (p -value<0.001), respectively). The most prevalent side effects were vaginal inflammation, flu-like and lower urinary tract symptoms. Over the course of the treatment with imiquimod, overall occurrence and the severity of side effects decreased.

Conclusion Topical imiquimod has a potential of becoming an alternative treatment for HSIL, especially in younger women with intermediate risk HSIL. However, its use is associated with higher occurrence of side effects, which can affect patients' quality of life. In the future, larger studies evaluating the long-term effects of this treatment are needed, especially in the view of disease progression and recurrence.

Disclosures The authors declare no competing interests. This research was financially supported by UMC Maribor.

Diagnostics

584

EVALUATION OF MICRO-RNA EXPRESSION IN CYTOLOGICAL SMEARS IN WOMEN WITH LOW GRADE SQUAMOUS INTRAEPITHELIAL LESIONS

Tatyana Prisyazhnaya, Anastasia Malek, Margarita Knyazeva, Igor Berlev. *N.N. Petrov National Medical Research Center of Oncology; North-Western State Medical University Named after I.I. Mechnikov*

10.1136/ijgc-2020-ESGO.209

Introduction/Background MicroRNAs are short molecules that regulate gene expression. The microRNA expression profile changes in cells during neoplastic transformation. In particular, characteristic changes in microRNA are observed in the cells of the cervical epithelium during the development of intraepithelial neoplasia. These changes are compounded in invasive cervical cancer cells. Accordingly, microRNAs can serve as diagnostic or prognostic biomarkers in patients with cervical dysplasia of varying severity.

In this study, we analyzed microRNA in patients with low grade squamous intraepithelial lesions (LSIL) and compared the data obtained with the clinical course of the disease.

Methodology Total RNA was isolated from the epithelium of patients with low grade squamous intraepithelial lesions and divided into two pools: "persistence" ($n=10$) and "recovery" ($n=10$), depending on the data of repeated cytological examination conducted after 6–9 months. In the obtained samples, we performed a comprehensive screening analysis of 85 micro-RNA expression (Cancer focus miRCURY RT-PCR panel, Exiqon, Denmark).

Results The results of microRNA profiling showed different levels of expression of 9 molecules in the compared groups. In cases of persistent cervical epithelial atypia during dynamic observation, miR-126-3p, miR-16-5p, miR-182-5p, miR-200c-3p, miR-205-5p, miR-223-3p, miR-24-3p molecules were expressed significantly more actively than in the group of samples obtained from patients whose cervical epithelium condition normalized during observation. The reverse situation was observed for miR-192-5p and miR-let-7f-5p.

Conclusion MicroRNA molecules whose expression level correlates with the prognosis of cervical epithelial dysplasia can serve as useful biomarkers and be used to personalize the treatment of this common gynecological disease. Validation of the microRNA estimation method requires more extensive research.

Disclosures The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.

619

DETECTING CERVICAL DYSPLASIA WITH FOLATE RECEPTOR-MEDIATED DETECTION STAINING AGENT

¹Luka Rožkar, ¹Nataša Borko Tavželj, ²David Moos. ¹Murska Sobota General Hospital; Gynecology and Obstetrics Department; ²Uag School of Medicine

10.1136/ijgc-2020-ESGO.210

Introduction/Background Colposcopy is an essential method in the diagnosis of precancerous lesions. In recent years, new adjunctive technologies have been emerging with an aim to increase the effectiveness of colposcopy. In our randomized pilot study, we tested the Folate Receptor-mediated Detection staining solution (FRD) on 10 patients who visited our colposcopy outpatient office.

Abstract 619 Table 1 Results of FRD staining, PAP smear, HPV test, colposcopy and histology in 10 patients.

Case	FRD	PAP	HPV	Colposcopy (Swede score)	Histology
1	+	H-SIL	+	5	CIN 1
2	+	H-SIL	+	8	CIN 2
3	+	H-SIL	-	4	No dysplasia
4	+	ASC-H	+	6	CIN 2
5	+	H-SIL (2x)	/	8	Acute cervicitis
6	-	H-SIL	-	0	Chronic Cervicitis
7	+	PAP B (2x)	+	4	CIN 1
8	+	PAP A	+	3	CIN 1
9	+	L-SIL (2x)	+	3	CIN 1
10	-	ASC-US	-	3	No dysplasia
		L-SIL			