catheters was 3 (range, 1–6 catheters). With a median follow-up of 21.6 (95% confidence interval, [19.1–23.5]) months, local relapse was observed in nine patients (6.3%), with four of them with persistent and progressive disease. The estimated 2-year local and pelvic relapse free survival were respectively 92% (95% confidence interval, [84%-96%]) and 90% [83%-94%]. The estimated 2-year disease free survival for the entire population was 80% [71%-87%]. The 2-year OS rate for the entire population was 92% [84%-96%]. Acute toxicity G3 was reported in two (1.4%) patients. High grade late toxicity (grade 3) was reported in 9 (6.3%) patients

Conclusion Combined IC/IS brachytherapy for LACC allows to reach recommended doses to achieve local control even in large tumours after CCRT improving target volume coverage with low rates of acute morbidity. Hybrid brachytherapy technique (EC/IS) is essential to have a favourable scenario at the time of brachytherapy to correctly treat locally advanced cervical cancers.

2022-RA-227-ESGO PATTERNS OF CARE AND TREATMENT OUTCOMES FOR ELDERLY WOMEN WITH CERVICAL CANCER- ARE THEY DIFFERENT? – A RETROSPECTIVE ANALYSIS

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Introduction/Background Radical chemo radiation is the standard of care in locally advanced cervical cancer. It is often a challenge to implement the same treatment in the elderly women. The data regarding treatment modalities and outcomes for this cohort is scarce in literature.

Methodology We retrospectively analyzed the medical database of previously treated elderly patients diagnosed with carcinoma cervix between January 2013 to December 2018 after approval from the institutional review board.

Results Mean age of patients was 65 years (Range:60 -95). Of the 176 patients, 98 (56%) patients received only RT, 63 (35%) received CRT, five (3%) patients received adjuvant RT, 4(2.8%) patients received chemotherapy and 1 (0.5%) patient received palliative RT. The most common schedule used for EBRT(External beam radiotherapy) was 50 Gy in 25#, five days a week. The mean EBRT dose was 50 Gy (Range:46–54 Gy). Sixty three patients (37%) received concurrent cisplatin (dose of 40 mg/sq.m). Out of 161 patients who completed EBRT, 19 patients received EBRT boost,133 patients underwent intracavitary brachytherapy. LDR was used in 48 patients and HDR was used in 85 patients. Two patients underwent interstitial brachytherapy and mould brachytherapy was used in 8 patients. The median OTT was 69 days (9.8 weeks). Acute grade 3 GI toxicities were found in 21(12.8%) patients. The median follow-up duration was 22 months. Twenty patients had disease progression. The median PFS was 25 (18-31) months and median OS was 27(18–35) months. The 3 yr PFS was 37% and 5 yr PFS was 20%. The 3 yr OS was 43% and 5 yr OS was 21%.

Conclusion To conclude, definitive radiotherapy comprising both EBRT and brachytherapy should be recommended even in the elderly women with careful assessment of comorbid conditions.

2022-RA-228-ESGO CERVICAL CANCER IN TUNISIA: MULTICENTRIC EPIDEMIOLOGICAL STUDY

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10.1136/ijgc-2022-ESGO.13

Introduction/Background Cervical cancer is a global public health problem. It causes significant morbidity and mortality, with more than 500,000 new cases and more than 300,000 deaths per year worldwide. In Tunisia, we do not have enough published data, so the epidemiological profile of this pathology is not well known. The objective of this work was to determine the epidemiological profile of cervical cancer in Tunisia and to specify the cost of treating the disease in order to develop an effective prevention strategy.

Methodology This was a retrospective descriptive, multi-centric study conducted in 6 obstetrical gynecology departments over a four-year period from January 1, 2016 to December 31, 2019.

Results The number of all-stage cervical cancer cases in the different centers was 665 cases over a four-year period; which is equivalent to 166 cases/year. The average age of our patients was 53.5 years. Cervico-vaginal smear screening was performed in only 17.9% of cases. The average consultation time in the study population was 5.6 months. Tumors were classified according to the FIGO 2009 c: 23.5% were diagnosed at an early stage (<IB1) and 76.3% at advanced stages (IB2 up to IV). Several therapeutic sequences were applied in our study, the most frequent was surgery associated with radiotherapy and chemotherapy (60.1%). Surgery was performed in 69.6% of patients . Radiotherapy was performed in 84.6% of patients. Brachytherapy was performed in 72% of cases . The direct annual cost of treatment was estimated at 1,268,502 $. Radiotherapy represented the largest item of expenditure .

Conclusion Cervical cancer still poses problems in terms of treatment due to the late diagnosis of this pathology. The control of this pathology of infectious origin necessarily involves the implementation of a mass vaccination against HPV of young girls who have not yet had sexual relations.

2022-RA-253-ESGO COMPARISON BETWEEN SINGLE VERSUS TWICE APPLICATION OF TOPICAL 85% TRICHLOROACETIC ACID IN THE TREATMEN OF CERVICAL INTRAEPITHELIAL NEOPLASIA; A RANDOMIZED CLINICAL TRIAL ON EFFICACY AND TOLERABILITY

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10.1136/ijgc-2022-ESGO.14

Introduction/Background To compare the efficacy of up to two-time administration of 85% TCA, as a promising alternative therapy to conservative and surgical management of grade one to three CIN

Methodology In this two-armed randomized clinical trial, a total of 53 patients with biopsy-proven CIN lesions were allocated to two groups of TCA treatment. The first group

(n=26) received a single dose of local therapy with 85% TCA while the second group (n=27) was treated on two separate occasions with a two-week interval. Two participants (one in each group) were lost to follow-up. At the two-month follow-up after, a colposcopy-guided biopsy was performed for all patients and the pathological specimens were studied by a single experienced pathologist to determine the post-intervention grading of CIN

Results Two groups were comparable in terms of age and base-line lesion grading, as CIN 1 lesions comprised the majority of cases (54%), followed by CIN 2(37%). While our sample was a poor representative of CIN3 lesions (7%), no significant difference was noticed between the single and twice TCA treated groups with a response rate of 52% and 54% respectively (either complete remission to normal histology or regression to any low-grade lesion). Either separate analysis (with respect to the base-line grading within each treatment group) or combined analysis (regardless of CIN sub-group) could not generate any statistical significance. The second dose of TCA did not increase the frequency of reported adverse events

Conclusion The second dose of topical 85% TCA does not seem to increase the CIN response rate more so than its single dose. However, further controlled clinical trials with larger samples are warranted to verify current findings. The use of TCA was not limited by any major side effect, therefore, the potential to achieve an increased efficacy with more frequent TCA applications is appealing

2022-RA-260-ESGO UM-6 INDUCES AUTOPHAGY AND APOPTOSIS VIA THE HIPPO-YAP SIGNALING PATHWAY IN CERVICAL CANCER

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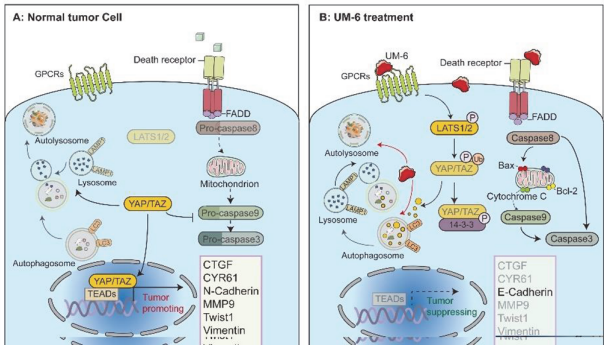
10.1136/ijgc-2022-ESGO.15

Introduction/Background The clinical application of Melittin is limited by its non-specific cytotoxicity and hemolytic activity. Here, we synthesized a novel antineoplastic peptide UM-6 based on melittin and explored the mechanism related to its anti-proliferation and metastasis on cervical cancer.

Methodology The function of UM-6 on proliferation, invasion, and migration was assessed by MTT assay, colony formation assay, transwell assay, and 3D invasion assay. To identify the anti-tumor molecular mechanism of UM-6,we used flow cytometry, immunoprecipitation, real-time quantitative PCR, dual-luciferase reporter assay, Western Blot, immunofluorescence, and immunohistochemistry. Finally, mouse xenograft models were constructed to further investigate the role of UM-6 in inhibiting cervical cancer proliferation and metastasis in vivo.

Results Firstly, UM-6 inhibits the proliferation of cervical cancer cells and less cytotoxic to normal epithelial cells in vitro; Secondly, UM-6 inhibits the invasion and migration of cervical cancer cells in vitro; Thirdly, UM-6 induces apoptosis and autophagosome accumulation in cervical cancer cells; Concretely, UM-6 promotes autophagic flux by promoting autophagosome degradation, and blocking autophagy reverses UM-6-induced cell death. Thus, we discovered that UM-6 inhibited cervical cancer cell viability while also inducing apoptosis (type I cell death) and autophagy-dependent cell death (type II cell death). UM-6 triggers the Hippo signaling pathway and promotes cytoplasmic retention and phosphorylation-dependent degradation of YAP; inhibits YAP-TEAD binding and reduces transcriptional activity, thereby suppressing the expression of downstream target genes. Injection of UM-6 in mice can significantly inhibit the growth of xenograft tumors without significant toxicity, and greatly reduce the number, volume, and burden of abdominal tumors in the metastasis model driven by cervical cancer cell lines.



Abstract 2022-RA-260-ESGO Figure 1

Conclusion UM-6 has the potential to serve as a new anticancer drug candidate. As a regulator of apoptosis and autophagy, UM-6 also regulates the Hippo/YAP pathway, providing a new avenue for efficient anti-cervical cancer therapy.

2022-RA-262-ESGO PREDICTORS OF ONCOLOGIC OUTCOME IN RECURRENT CERVICAL CANCER PATIENTS RECEIVING PHASE 1 CANCER THERAPY

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10.1136/ijgc-2022-ESGO.16

Introduction/Background Few treatment options exist in recurrent cervical cancer, which makes phase 1 clinical trials a compelling option. In order to identify candidates for referral, we analyzed factors predictive of response and survival in cervical cancer patients referred to phase 1 trials.

Methodology Cervical cancer patients who received at least 1 cycle of a phase 1 agent between 2014–2022 were retrospectively reviewed. Clinical and pathologic data were abstracted, Log-rank test was used to test the difference in progression-free survival (PFS) and overall survival (OS). Multivariable regression analysis was performed for predictors of response and survival.

Results 65 patients met eligibility. At trial entry, patient characteristics included the following median (range) values: age 41 years (20,74), 3 prior therapies (1,7), and 5-month progression-free interval before trial (1,32). 67.7% had squamous carcinoma, 27.7% adenocarcinoma, 4.5% other. The rate of distant metastasis was 84.6%. The most common alterations included *PIK3CA* (46.5%), PDL1+ (46.2%), EPH (30.0%),