

multivariate analysis on the ESGO/ESMO/ESTRO risk class classification and results were statistically significant for both DFS ($p=0,003$) and OS ($p=0,0001$).

Conclusion Almost all the considered prognostic factors influence the presence of recurrence, but the stage is the most important factor while LVSI correlates with distance metastasis. The definition of the risk factors must be considered to develop targeted therapeutic pathways.

Disclosures The authors declare that the research was conducted in the absence of any commercial or financial relationship that could be construed as a potential conflict of interest.

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METFORMIN AS A PREVENTIVE AND THERAPEUTIC MODALITY IN ENDOMETRIAL CANCER: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROL TRIALS

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Introduction/Background Endometrial cancer (EC) is the most commonly diagnosed gynecological malignancy in the developed countries. Obesity, diabetes mellitus and infertility are some of the contributory factors. Some patients with EC wish to preserve their fertility or others have several comorbidities that contraindicate surgery. These groups of patients could benefit from a conservative treatment strategy such as the use of metformin. This agent is an option in women with increased EC risk as well as in those with atypical endometrial hyperplasia.

Methodology We evaluated the protective effects of metformin in EC patients, its preventive role in breast cancer and obese patients and its effectiveness, safety and efficacy in addition to progesterone monotherapy in treatment of fertility sparing candidates. We reviewed the literature and then conducted a meta-analysis of the relevant parameters. A total of 6 studies was included in the meta-analysis.

Results Comparing the pre-surgical treatment with metformin versus placebo, meta-analysis of mean difference in Ki-67 after treatment among two groups, revealed no difference (MD -7.10, 95% CI -23.31 to 9.11, $p=0.39$). Meta-analysis of fertility sparing EC management with a combination of megestrol acetate (MA) and metformin (500 mg three times a day) in comparison with monotherapy with 160 mg daily MA revealed no difference in either complete response or partial response rates (166 patients OR 2.94, 95% CI 0.85 to 10.15, $p=0.09$ and 166 patients OR 0.76, 95% CI 0.34 to 1.66, $p=0.49$, respectively). Regarding breast cancer survivors under tamoxifen, metformin was related with significantly reduced median endometrial thickness after 52 weeks of evaluation when compared to women in placebo group (2.3 mm vs 3.0 mm, $p=0.05$).

Conclusion Metformin neither was found to have a preventative role against the development of endometrial cancer nor a beneficial one in addition to the progesterone monotherapy for EC fertility sparing candidates. However, metformin was found to be protective in breast cancer survivors under tamoxifen.

Disclosures Nothing to disclose.

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COMBITEC: MULTICENTRIC RETROSPECTIVE STUDY ON SENTINEL LYMPH NODE DETECTION BY COMBINED ICG + 99MTC VERSUS EXCLUSIVE ICG IN ENDOMETRIAL CANCER

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Introduction/Background Despite its extended use, there is scarce evidence about the combined use of 99mTc-albumin nanocolloid (99mTc) and indocyanine green (ICG) for the detection of sentinel lymph node (SLN) in endometrial cancer, when compared to ICG alone. The aim of this study is to compare the detection parameters of both methods.

Methodology Multicentric retrospective study (November 2015-June 2020) including patients diagnosed with endometrial atypical hyperplasia or initial preoperative stage endometrial carcinoma (FIGO I-II) who underwent SLN biopsy by cervical injection of: a) ICG intraoperatively, or b) 99mTc preoperatively, and ICG intraoperatively (ICG+99mTc).

Results A total of 180 patients were included, 51% ($n=92$) in the ICG group and 49% ($n=88$) in the ICG+99mTc group. 86.7% of the patients presented endometrioid histology, and 58.7% were preoperatively classified as low risk, according to the ESMO/ESGO/ESTRO criteria. The vast majority of the procedures (99.4%) were performed by a minimally invasive approach. Both groups were comparable regarding their basal characteristics, except for a higher body mass index (27.6 vs. 30.3 kg/m², $p=0.014$) in the ICG+99mTc group and a bigger proportion of robotic-assisted procedures (54.4 vs 29.6%, $p=0.001$) in the ICG group.

Global detection rate was 92.8% (IC 95%: 88.0-95.7), without statistically significant differences among groups (ICG:94.6% vs ICG+99mTc:90.9%, $p=0.344$). No significant differences were observed in the pelvic bilateral mapping rate (71.6%, ICG:70.7% vs ICG+99mTc:71.6%, $p=0.890$) or the aortic mapping rate (5.6%, ICG:8.7% vs ICG+99mTc:2.3%, $p=0.058$).

When ICG+99mTc was used, surgical procedures were 30 minutes longer when compared to ICG (150 vs 180 min, $p=0.003$). In 12 patients (6.7%) at least one positive SLN was found (ICG:9.8% vs ICG+99mTc:3.4%, $p=0.164$).

No significant differences were observed regarding the empty node packets rate or the number of SLNs retrieved per patient. There were no patients with a positive lymphadenectomy specimen and a negative SLN, thus sensitivity was 100%.

Conclusion Combining preoperative 99mTc to intraoperative ICG did not improve SLN detection in endometrial cancer, but resulted in longer procedures.

Disclosures Nothing to disclose.

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PREDICTIVE ROLE OF RADIOMIC FOR POST-OPERATIVE COMPLICATIONS OF LYMPHADENECTOMY IN EC PATIENTS

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Introduction/Background Endometrial cancer (EC) is currently the most frequent cancer affecting the female genital system. The treatment of choice is represented by surgery, which consists of bilateral hysterectomy and adnexectomy with lymphadenectomy (L) according to risk factor for recurrence. The systematic lymphadenectomy procedure is often associated with postoperative complications, such as lymphedema, lymphocysts, lymphorrhoea. Recently, sentinel lymph node mapping have overcome the complications associated with L, though there is limited access to this technique. The aim of the study was to evaluate the role of radiomic analysis of pelvic adipose tissue at CT in predicting the incidence of post-operative complications of L.

Methodology Consecutive patients who underwent surgical treatment of endometrial cancer at Careggi University Hospital between January 2016 and December 2019 were enrolled. Only patients underwent to pelvic lymphadenectomy were enrolled. Exclusion criteria were bulky nodes at the preoperative imagings. Staging CT images were used for the radiomic analysis; pelvic adipose tissue was identified and segmented, so the images were imported to the 3D Slicer software. Subsequently, the extractions of the three radiomics features (busyness, flatness, elongation) of the area of interest were carried out.

Results Twenty seven patients were enrolled. Five patients developed post-operative complications. The value of Busyness, Flatness and elongation correlated with postoperative complications ($p = 0.04$, $p = 0.021$, $p = 0.03$, respectively).

Conclusion Our preliminary study shows that radiomic might be useful to predict whether a patient will develop any complications associated with the lymphadenectomy. Consequently pre-operative imaging might be used also to select which patient benefit the most from sentinel node study instead of L.

Disclosures The authors have no conflicts of interest to declare.

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ONCOLOGICAL OUTCOME OF SENTINEL LYMPH NODE MAPPING OR COMPREHENSIVE SURGICAL STAGING IN PATIENTS WITH NODE-NEGATIVE INTERMEDIATE-RISK ENDOMETRIAL CANCER

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Introduction/Background The role of lymphadenectomy in surgical staging for endometrial cancer remains controversial. The standard of care – consisting of a pelvic and para-aortic lymphadenectomy (LND) – has failed to show survival advantage while leading to an increased peri- and postoperative morbidity. Sentinel lymph node (SLN) mapping has gained popularity, offering a compromise between no nodal staging and complete LND. Multiple studies have demonstrated high detection rates and negative predictive values of SLN mapping with near-infrared fluorescence imaging and indocyanine green (ICG) in endometrial cancer. However, the literature contains limited data on its safety and oncological outcomes. Aim of this study is to evaluate the oncological outcome of SLN mapping in patients with intermediate-risk endometrial cancer.

Methodology In a retrospective, single-center study, we investigated the oncological outcome of patients with stage I intermediate-risk endometrial cancer who underwent surgical staging at our institution between February 2013 and July 2020.

Results Out of a total number of 306 patients with endometrial cancer, 57 patients were diagnosed with node-negative intermediate-risk endometrial cancer (FIGO IA grade 3, FIGO IB grade 1 or 2). All patients were treated with laparoscopic hysterectomy and bilateral salpingo-oophorectomy with ICG SLN mapping. 31 patients additionally underwent comprehensive surgical staging (four systematic pelvic lymphadenectomies and 27 pelvic and para-aortic lymphadenectomies, LND group). Mean follow up time was 38.0 months. Adjuvant treatment consisted of vaginal brachytherapy in 49 patients, additional chemotherapy in four patients and no adjuvant treatment in eight patients. Between the two cohorts, there were no differences in age or BMI. The mean number of lymph nodes removed (4.04 vs. 45.5), the duration of the surgical procedure (131.3 vs. 287 minutes) as well as the intraoperative blood loss (101.9 vs. 258.1 ml) were significantly higher in the LND group ($p = 0.000$, 0.000 and 0.026 , respectively). Recurrence rates (7.7% SLN, 9.7% LND, $p = 0.585$) and death due to disease (3.8% SLN, 3.2% LND, $p = 0.709$) were similar between the two groups. Further on, there was no statistically significant difference in overall and recurrence free survival for patients with SLN mapping only compared to the LND cohort ($p = 0.541$ and 0.480 , respectively).

Conclusion In our cohort, the use of ICG SLN mapping alone did not impair oncological outcome compared to a complete lymphadenectomy. It therefore might provide an efficient alternative of nodal staging with less morbidity in intermediate-risk endometrial cancer patients. However, prospective studies on larger numbers of patients are needed to confirm our findings.

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SENTINEL LYMPH NODE MAPPING WITH INDOCYANINE GREEN IN ROBOTIC-ASSISTED LAPAROSCOPIC SURGERY FOR EARLY ENDOMETRIAL CANCER: A POPULATION-BASED COHORT STUDY

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Introduction/Background The sentinel lymph node (SLN) biopsy may have a key role in endometrial cancer (EC), as the therapeutic effect of lymphadenectomy per se remains a field of contention. The aim of this study was to analyse our experience using indocyanine green for SLN mapping in a minimally robotic-assisted laparoscopic approach with Da Vinci Si near-infrared (NIR) fluorescence imaging system.

Methodology This is a retrospective population-based cohort study of prospectively collected data, spanning the period from January 2015 to March 2020. A total of 172 women, who underwent robot-assisted laparoscopic surgery with the Da Vinci Si Surgical System with NIR imaging and indocyanine (ICG) fluorescence detection for early stage EC, were enrolled. Cervical injection with ICG (2 ml) was performed for all patients. Baseline demographics, peri-operative and follow-up data were prospectively collected. We calculated the unilateral and bilateral detection rate. Possible correlations amongst the variables were examined using the Spearman's correlation coefficient (ρ), whilst multivariate logistic