1. Borderline tumors of the ovary in premenopausal patients

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Objectives: To describe the clinical findings, treatment, and outcome of borderline ovarian tumors in 32 premenopausal patients admitted to the Miguel Servet University Hospital over a 17-year period.

Methods: Thirty-two premenopausal patients diagnosed and treated from 2003 to 2020 for borderline ovarian tumors were retrospectively evaluated.

Results: The 32 borderline included 12 serous, 19 mucinous, and 1 endometrioid tumors, 2 of them were of stage more than I. The average age of the patients was 34.5 years (14–45), 22 were symptomatic, pain being the most frequent symptom (68.8%). 8 patients were operated on primarily by laparoscopy and 24 by laparotomy. In the laparoscopy group, median tumor diameter was smaller (7.5 versus 14.7 cm, \( p = 0.019 \)) and surgeries were less extensive, without hysterectomy, as compared to the laparotomy group. There were 21 fertility-sparing surgeries, 7 patients attempted a subsequent pregnancy and in 6 cases a pregnancy with a healthy child was obtained (2 using assisted reproductive techniques). During the 7–108 months follow-up time, there were 3 relapses: 2 borderline tumors (treated surgically and disease free) and 1 carcinoma treated with surgery and chemotherapy that ended in death due to cancer.

Discussion: In our study, only 6.25% of the borderline tumors were of stage more than I, whereas other studies report a higher proportion of more advanced stages (7.5–18.5%). As borderline ovarian tumors more often arise in young women, in whom malignancy is less common and who wish to preserve their fertility, their initial surgery is often laparoscopy.

Conclusions: Borderline ovarian tumors have an excellent prognosis. Good results are provided in young patients wishing to preserve fertility.

Keywords:
Borderline ovarian tumor; Fertility; Recurrence
2. Evaluation of axillary response to primary systemic therapy through selective sentinel lymph node biopsy and axillary wire

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Objectives: To demonstrate the safety and efficacy of directed axillary dissection through selective sentinel lymph node biopsy (SLNB) and wire on the clipped node, for the selection of patients who are candidates for conservative axillary treatment after the diagnosis of breast cancer with initial lymph node involvement who develop a complete axillary response after neoadjuvant treatment.

Material and methods: Prospective cohort study carried out at the Miguel Servet University Hospital in Zaragoza. 66 patients with a diagnosis of breast cancer and initial histological axillary involvement were included, in which the biopsied node was marked with a radio-opaque clip prior to the start of neoadjuvant treatment. All patients underwent axillary sampling using SLNB or SLNB plus axillary wire prior to lymphadenectomy.

Results: The detection rate of the SLNB is 100% with a mean of 1.8 sentinel nodes studied. In 14 patients, axillary sampling was performed only with SLNB, with a false negative rate (FNR) of 14.29%, which decreased when 2 or more nodes were removed or when clipped node was removed. In 51 cases, double marking with SLNB plus axillary wire was performed, which ensures excision of the clipped node in 96.1% of cases with a FNR of 1.96%. The negative predictive value (NPV) of the sample when the clipped node is studied is 96.8%.

Conclusion: Directed axillary dissection with SLNB plus axillary wire on the clipped node is a safe and effective strategy for the selection of patients who are candidates for conservative axillary treatment after neoadjuvant treatment, avoiding unnecessary lymphadenectomies.

Keywords:
Breast cancer; Axillary involvement; Primary systemic therapy; Selective sentinel lymph node biopsy; Axillary wire; Lymphadenectomy

3. Radiological response and pathological response in breast cancer, is there a concordance?

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Objective: To study whether there is concordance between the radiological response and the complete pathological glandular and axillary response in patients with breast cancer.

Material and methods: A study was carried out in the Breast Unit of the Miguel Servet University Hospital between 2016–2020. Patients with breast cancer and axillary involvement at diagnosis who received systemic primary therapy and subsequent surgery were included. The concordance between the radiological response of the glandular and axillary disease and whether or not a complete pathological response was obtained were studied.

Results: Out of a total of 74 patients, the complete glandular pathological response was achieved in 30 of them and the complete axillary pathological response in 32. The sensitivity of imaging tests for the detection of complete glandular pathological response was 71% and the specificity 94%. The sensitivity and specificity for the complete axillary pathological response were 64% and 91% respectively.

Discussion: The radiological evaluation has an important impact on the planning of the surgery. Its constant evolution means that the concordance with the anatopathological findings is increasing, and in view of the tendency to de-escalation in surgical treatment, it may play a role in the selection of patients with more or less risk of persistent disease, allowing more conservative surgeries to be performed.

Conclusion: The concordance between radiological response and pathological response is greater in the breast than in the axilla, with a similar specificity but greater sensitivity.
4. Descriptive study: characteristics of patients with axillary affection at the diagnosis of breast cancer

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Objectives: To describe the characteristics of patients with breast cancer who present axillary involvement at diagnosis.

Material and methods: A study was carried out in the Gynecology Breast Unit of the Miguel Servet University Hospital between 2016 and 2020. Patients with breast cancer and axillary involvement at diagnosis who received treatment with primary systemic therapy and subsequent surgery were included. The present study describes the clinical characteristics of the patients and the histological and immunohistochemical characteristics of the tumors.

Result: A total of 74 patients were found who met the inclusion criteria in the study. The mean age of the patients with lymph node involvement at diagnosis was 59.84 years. 66.2% of them were menopausal, the mean tumor size was 3.1 cm by magnetic resonance imaging and the most frequent histological subtype found was Luminal B. The most frequent tumor location was the superoexternal quadrant followed by retroareolar tumors.

Discussion: Lymph node involvement at diagnosis is an independent poor prognostic factor in breast cancer. The study of the characteristics of patients with this affection makes it possible to emphasize early diagnosis strategies as well as to lay the foundations for the management of this type of patients.

Conclusion: There are common characteristics in patients with breast cancer and lymph node involvement at diagnosis. More studies are needed to determine the implication of this fact and the development of strategies to improve its early diagnosis.

Keywords: Descriptive statistics; Lymph node involvement; Breast cancer

5. Analysis of patients diagnosed with endometrial cancer between 2017 and 2020 of the Barbastro Health Sector

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Objectives: Analysis of patients diagnosed with endometrial cancer, characteristics, risk factors, histological types and treatments.

Methods: Retrospective study of patients with endometrial cancer confirmed by pathology study in the Barbastro Health Sector from 1 January 2017 to 31 December 2020. Type of surgery and treatments according to tumor type and FIGO staging.

Results: 54 patients were diagnosed with endometrial cancer, with advanced age (>60 years) in 74.07%, arterial hypertension in 64.81% and obesity in half of the cases. The 77.78% consulted for abnormal postmenopausal genital bleeding. The most frequent type was the endometrioid or type I in 90.48%. And types II, in more advanced stages, 41.67% (III–IV).

Discussion: The older age of the population, obesity, diabetes and hypertension are risk factors for endometrial cancer that have increased in recent years. Types I were diagnosed in the initial stages in 90.48%. And types II, in more advanced stages, 41.67% (III–IV).
Conclusions: The most frequently presented risk factors were: advanced age, hypertension and obesity. Most of the patients consulted for postmenopausal genital bleeding. Histological type I was the most frequent, they presented more in the initial stages and with less aggressive treatments compared to type II.

Keywords:
Endometrial cancer; Risk factors; Type I; Type II; Treatment

6. Predictive factors of a complete pathological response to neoadjuvance of axillary disease in breast cancer

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Objectives: To know the predictive factors for a complete axillary pathological response to neoadjuvant treatment in patients with breast cancer and axillary involvement at diagnosis.

Material and methods: A prospective study was carried out in the Breast Unit of the Miguel Servet University Hospital between 2016–2020. Patients with breast cancer and axillary involvement at diagnosis who were treated with primary systemic therapy and subsequent surgery were included, and the clinical and tumor characteristics, neoadjuvant treatment and response were compared among the patients with persistence of axillary disease and patients with a complete pathological response.

Results: A total of 74 patients were included, 32 of whom achieved a complete pathological response and 42 with persistent axillary disease. A stronger association with the lymph node in surgery was shown by the presence of HER2 and the chemotherapy treatment. An association was found with other variables such as the proliferation index, estrogen receptors and anti-HER2 therapy, although statistical significance was not established.

Discussion: The study of predictive factors of complete response as well as techniques of directed axillary dissection are strategies aimed at de-escalating axillary surgery in these patients. The findings obtained in this study are consistent with the existing literature.

Conclusion: The factors with the greatest impact on the complete axillary pathological response are the presence of HER2 and treatment with chemotherapy.

Keywords:
Breast cancer; Neoadjuvant; Chemotherapy; Axillary disease

7. A cross-sectional study to estimate human papillomavirus prevalence and type distribution in women aged 35–65 years with inappropriate screening of cervical cancer in La Rioja

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Introduction: The aim of the study was to estimate the prevalence of cervical HPV infection and HPV type-specific distribution among women who have not performed an adequate cytological screening in La Rioja.

Material and methods: The study includes a total of 1000 samples of cervical smears, collected in the period between November 2014 and November 2015 in the gynecological consultations of the San Pedro Hospital (HSP). Patients were included as long as they fulfilled the conditions of entry into the study: women older than 35 years and under 65 and without previous cytology for 3 or more years (inadequate screening of CCU). Liquid-based cervical samples were collected and analyzed for cytology, HPV detection, and genotyping. HPV genotyping was determined using CLART 2 (Genomics).
**Results:** Out of 1000 valid samples, 130 were HPV positive: 102 were positive for HPV-AR, 49 for HPV-BR and 11 for HPV-IR. Stratifying the sample by risk genotypes, 16, 33, 45 and 18 were the genotypes that were most frequently amplified. HR-HPVs are found in greater proportion than those of intermediate-low risk. The prevalence is inversely related to the age of the women. Multiple HPV infections is demonstrated in two thirds of the women who carry HPV. The 95.06% of patients with multiple infection are infections with predominance HR-HPV genotype. Smoker women (ORadj = 2.02, 95% CI: 1.37–3.83) with immunosuppression (ORadj = 2.06, 95% CI: 1.01–4.17) had a higher risk to be infected while Menopausal women (ORadj = 0.123, 95% CI: 0.43–0.35), aged 45–55 years old (ORadj = 0.385, 95% CI: 0.17–0.88) and 56–65 years old (ORadj = 0.193, 95% CI: 0.05–0.71) with non-European nationality (ORadj = 2.22, 95% CI: 0.94–5.27), with more than one child (ORadj = 0.406, 95% CI: 0.23–0.72) and those who used condoms (ORadj = 0.010, 95% CI: 0.03–0.39) had lower risk to be infected. The HPV prevalence in women with abnormal cytology was significant higher than in women with normal cytology.

**Conclusions:** The HPV type distribution found may represent a baseline picture; an accurate post-vaccine surveillance is necessary to early detect a possible genotype replacement. The high prevalence of viral types other than vaccine-HPV types supports the necessity to guarantee the progression of CC screening programmes in vaccinated women.

**Keywords:**
Human papillomavirus (HPV); Cervical intraepithelial neoplasia; Cervical cancer; HPV infections; HPV screening; HPV prevalence; Tumoral viral infections; Epidemiology; Genotype; Risk factors; Spain; La Rioja

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8. Impact of the COVID-19 pandemic on cervical cancer screening in the Barbastro Sector and implementation of the Self-Sampling screening test

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**Objective:** To analyze the variations in cervical cancer screening (CCS) due to the COVID-19 pandemic. Implement of Self-Sampling test as a safe method.

**Methods:** Retrospective comparative study of the CCS in the years 2019 and 2020. The tests carried out (HPV test, cytologies and biopsies) in the Health Sector of Barbastro obtained from the database of Pathological Anatomy from 01 January 2019 to 31 December 2020 are included.

**Results:** In 2019, 4363 tests (HPV/cytologies) were performed and in 2020, 2785 were performed. The greatest drop is observed in the month of April, with 93% fewer tests, compared to that month in 2019. In 2019, 63 cases of Cervical Intraepithelial Neoplasia of grade 2 or worse (CIN 2+) were diagnosed and in 2020, only 31 cases of CIN 2+ were diagnosed. In total 12 Self-Sampling tests were taken in 2019 and 25 in 2020.

**Discussion:** The healthcare crisis due to the COVID-19 pandemic has caused a decrease in screening tests and supposes a decrease in CIN 2+ diagnoses. The WHO recommends maintaining the CCS and proposes to implement Self-Sampling for HPV testing to maintain coverage.

**Conclusions:** The COVID-19 pandemic has led to a 36.16% decrease in CCS tests in the Health Sector of Barbastro. The two months of 2020 with the most impact on screening were April and May. The rate of CIN 2–3 diagnoses has been reduced by 50%. The small number of Self-Sampling tests prevents conclusions from being drawn, however, it is a useful tool in pandemic times.

**Keywords:**
Cervical cancer screening; COVID-19; Self-sampling