

Supplementary Table 3. Characteristics of the included studies

Study ID	Author	Country	Journal	Age (yr)	Study design	Cancer type	Monocenter or multicenter
1	Leung et al. [3] (2024)	Taiwan	Scientific Reports	For cases 44.7 (15-19) and for control 53.02 (16-17)	Retrospective case-control	Gynecologic cancers	Multicenter
2	Elgebaly et al. [9] (2022)	Egypt	Journal of Immunoassay and Immunochemistry	50.3±10.6	Retrospective cohort	Ovarian cancer	Monocenter
3	Aga et al. [13] (2022)	Saudi Arabia	Journal of Nature and Science of Medicine	58.59 (15-170)	Retrospective cohort	Ovarian cancer	Monocenter
4	Diez and Iglesias [14] (2022)	Spain	PLoS One	Adult female	Population based case-control	Cervix cancer	Multicenter
5	Li et al. [15] (2021)	China	Endocrine Journal	24-51	Case-control	Uterine fibroids	Monocenter
6	Jha et al. [16] (2021)	India	Obstetrics & Gynecology Science	Premenopausal women aged <55 years	Retrospective cohort	Endometrial carcinoma, atypical endometrial hyperplasia, and benign pathology	Multicenter
7	Vilaro et al. [17] (2021)	USA	Gynecologic Oncology	Adult females	Retrospective cohort	Uterine cancer	Monocenter
8	Almehmadi et al. [18] (2020)	Saudi Arabia	Journal of Advanced Pharmacy Education and Research	Adult females	Retrospective cohort	Female genital tract cancer	Monocenter
9	Liao and Yang [8] (2019)	China	Cancer Research on Prevention and Treatment	The EC group's age ranged from 35 to 73 years, with a mean age of 52.97 years and a median age of 53 years. The control group's age ranged from 33 to 68 years, with a mean age of 51.26 years and a median age of 50.5 years	Case-control	Endometrial carcinoma	Monocenter
10	Journy et al. [19] (2017)	USA	Thyroid	20-89	Prospective cohort case-control	Ovarian cancer and female genital tract except ovary	Multicenter
11	Kurnit et al. [20] (2015)	USA	Gynecologic Oncology	For cases 62 and for controls 48	Case-control	Uterine cancer	Multicenter
12	Ott et al. [21] (2014)	Austria	European Journal of Obstetrics & Gynecology and Reproductive Biology	32 (18-43)	Retrospective cohort	Uterine leiomyoma	Monocenter
13	Soleymani et al. [22] (2014)	Iran	Arch Gynecol Obstet	41-50	Retrospective cohort	Endometrial polyps and malignancy	Monocenter

Supplementary Table 3. Characteristics of the included studies (Continued)

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14	Seebacher et al. [23] (2013)	Austria	British Journal of Cancer	67.5 (30.5-90.5)	Retrospective cohort	Endometrial cancer	Multicenter
15	Chen et al. [24] (2013)	Taiwan	British Journal of Cancer	39.9 (15.2)	Retrospective cohort	Uterus, cervical, and ovary	Multicenter
16	Chen et al. [25] (2013)	Taiwan	Thyroid	41.7±13.8	Retrospective cohort	Uterus, cervical, and ovary	Multicenter
17	Kang et al. [7] (2013)	USA	Obstetrics and Gynecology International	25-42 and 30-55 (25-55)	Retrospective cohort	Endometrial cancer and ovarian cancer	Multicenter
18	Brinton et al. [26] (2007)	Denmark	Gynecologic Oncology	Cases and controls identified from registry according to birth year	Retrospective cohort	Uterine and ovarian cancer	Multicenter
19	Ness et al. [27] (2000)	USA	Epidemiology	20-69	Population-based case-control	Ovarian cancer	Multicenter

Values are presented as mean±standard deviation or median (range) or number (%). ID, identity document.

Supplementary Table 3. Characteristics of the included studies (Continued)

Study No.	Title/doi
1	Hypothyroidism and hyperthyroidism related to gynecologic cancers: a nationwide population-based cohort study. https://doi.org/10.1038/s41598-023-50439-z
2	Hypothyroidism affect progression and worse outcomes of breast cancer but not ovarian cancer. https://doi.org/10.1080/15321819.2021.2001003
3	Detailed demographics and the prevalence of comorbidities in ovarian cancer patients in western region of Saudi Arabia. https://doi.org/10.4103/jnsm.jnsm_158_21
4	Malignant neoplasms in people with hypothyroidism in Spain: a population-based analysis. https://doi.org/10.1371/journal.pone.0275568
5	Relationship between thyroid disorders and uterine fibroids among reproductive-age women. https://doi.org/10.1507/endocrj.EJ20-0340
6	Rate of premalignant and malignant endometrial lesion in “low-risk” premenopausal women with abnormal uterine bleeding undergoing endometrial biopsy. https://doi.org/10.5468/ogs.21150
7	Thyroid function and survival outcomes in women with uterine cancer. https://doi.org/10.1016/S0090-8258(21)01237-3
8	Assessment of thyroid gland function by evaluating of TSH, FT3 and FT4 hormones in untreated cancer patients
9	Correlation of hypothyroidism and endometrial carcinoma. https://doi.org/10.3971/j.issn.1000-8578.2019.18.1902
10	Hyperthyroidism, hypothyroidism, and cause-specific mortality in a large cohort of women. https://doi.org/10.1089/thy.2017.0063
11	Increased prevalence of comorbid conditions in women with uterine cancer. https://doi.org/10.1016/j.ygyno.2015.07.004
12	Overt hypothyroidism is associated with the presence of uterine leiomyoma: a retrospective analysis. https://doi.org/10.1016/j.ejogrb.2014.03.003
13	Histopathological findings of endometrial specimens in abnormal uterine bleeding. https://doi.org/10.1007/s00404-013-3043-1
14	Does thyroid-stimulating hormone influence the prognosis of patients with endometrial cancer? A multicentre trial. https://doi.org/10.1038/bjc.2013.282
15	Cancer risk in patients with Hashimoto's thyroiditis: a nationwide cohort study. https://doi.org/10.1038/bjc.2013.597
16	Cancer risk in patients with Graves' disease: a nationwide cohort study. https://doi.org/10.1089/thy.2012.0568
17	A large cohort study of hypothyroidism and hyperthyroidism in relation to gynecologic cancers. https://doi.org/10.1155/2013/743721
18	Relationships of uterine and ovarian tumors to pre-existing chronic conditions. https://doi.org/10.1016/j.ygyno.2007.08.002
19	Factors related to inflammation of the ovarian epithelium and risk of ovarian cancer. https://doi.org/10.1097/00001648-200003000-00006

TSH, thyroid stimulating hormone; FT3, free triiodothyronine; FT4, free thyroxine.