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Dear *****,

thank you for kindly provided information for a second opinion and treatment recommendations according to German standards.

Clinical information:

The family history is not burdened. ****15 cervical biopsy showed epidermal endocervicosis with chronic inflammation with signs of CIN 1 degree. Fibroadenoma/competing lobule was identified in August 2021. In September the patient suffered from Covid-19. Control in November with a recommendation to repeat the ultrasound in a year. Covid-19 in January 2022. November 12-14, 2022 at night, copious yellow-orange discharge from the nipple of the right breast.

Mammography and biopsy (11/2022) were performed, the diagnosis was made:

Device (11/22) - NST, pT2 N1a (1/18) M0 (KT/Scinti), G2, Her2-, V1 (WH23/869) + DCIS/LCIS, HR+ (100%/100%), Ki- 67 - 15% (WH23/869) -20%

Left (07/23) – NST, cT1b (9mm) N0 M0, HR+ (95%/100%) Ki-67 – 4%

MRT MH from ****23 – lesion on the left up to 9 mm (verified by breast cancer)

Treatment performed:

On 02/23, a sectoral resection on the right was performed with the removal of 2 axillary lymph nodes. BRCA1/2 negative

****23 expansion of the bed and lymphodectomy of 18 lymph nodes. Micrometastasis 0.9 mm in 1 lymph node.

Questions for consultation:

1. recommended treatment
2. alternatives to radiation therapy

Written consultation from ****23:

1. **Operation**

Sectoral resection on the left with diagnosis of the sentinel lymph node is recommended (by analogy with the right side)

2. **Adjuvant hormonal therapy:**

Possibly an aromatase inhibitor (letrozole/exemestane) with reduced activity of the CYP2D6 gene + GnrH analogue (once every 3 months is sufficient - see diagram below)

3. **Radiation therapy:**

After sectoral resection of the breast, the main method of further treatment in Germany is radiation therapy. Its goal is to prevent the possible occurrence of cancer in the area of surgery, since the probability of local recurrence without such treatment can reach 30%.

However, like any treatment, radiation therapy has its pros and cons, and I understand your desire to consider alternatives.

If you refuse radiation therapy, there are several options:

- Regular monitoring using MRI: In this case, you will need to undergo magnetic resonance imaging every year. This will allow us to identify possible changes or relapses at an early stage and perform the most gentle treatment without worsening the prognosis.
- Mastectomy: this method is radical and is used to minimize the likelihood of relapse.

Both options have their pros and cons, and the choice depends on many factors, including your personal preferences, overall health, and the risks associated with each method.

If you decide to undergo radiation therapy, then, according to the protocols of the AGO (German Society of Gynecological Oncology), the following radiation therapy regimen is recommended for you:

On the operated area of the chest wall locally, without irradiation of the axillary, supraclavicular and parasternal (since extended lymph node dissection was performed), the area in the following mode:

- Total dose approx. 42 Gray, in 16-17 fractions over 3-4 weeks
- The start of radiation therapy is 6-8 weeks after completion of the operation.

Radiation therapy does not affect life expectancy, but reduces the risk of recurrence in the area of surgery.

Radiation therapy has virtually no effect on the risk of lymphostasis (removal of lymph nodes is decisive here).

4. **The following post-treatment follow-up regimen is recommended for you:**

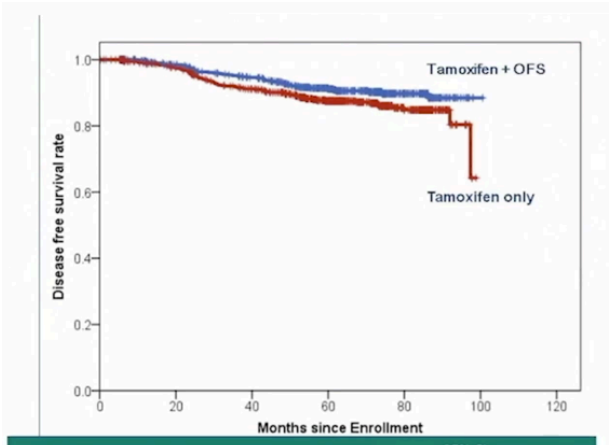
- Mammography - first - 6 months after completion of radiation therapy, then annually
- Breast self-exam - monthly
- Ultrasound in the first 3 years - every 3 months
- Ultrasound for 4-5 years - once every 6 months
- Ultrasound starting from the 6th year - once a year in a specialized mammology center (ultrasound sensor of at least 15 MHz)
- Breast MRI with contrast - every year (my personal recommendations, not in the protocols). If you decide to undergo radiation therapy, you can do it once every 2 years.

I hope my consultation helped you find answers to your questions. If you still have questions, I am willing to discuss all available options with you so that you can make a thoughtful, informed decision in the best interests of your health.

Best wishes, ****2023

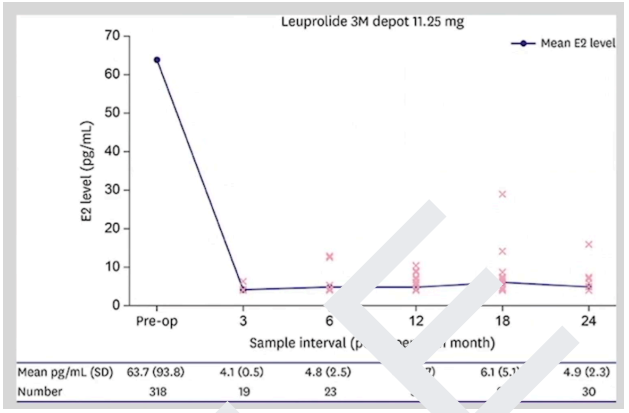
Dr. S. Popovich
Radiologist-mammologist

Benefits There + GnrH



	Pts	Events	5-yr %	HR	95% CI Lower	95% CI Upper	P-value
Tamoxifen only	647	80	87.5				
Tamoxifen +OFS	635	52	91.1	0.686	0.483	0.972	0.033

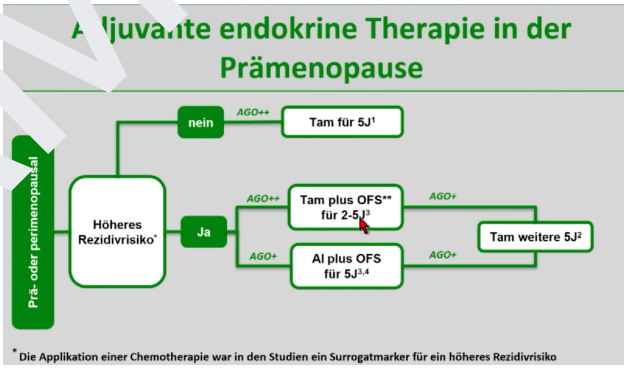
Taking GnrH every 3 months sufficiently suppresses ovarian function



Medicines that can be taken during irradiation

	Oxford LoE	GR	AG
Trastuzumab/Pertuzumab*		A	++
T-DM1	1	A	
Tamoxifen	2b	B	
Aromatasehemmer	2b		+
Checkpointinhibitoren	2b		+
Capecitabin	2b	B	+**
CDK4/6-Inhibitoren			+/-***

Recommendations There + GnrH



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