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Case Report Open Access

A Case of Subacute Thyroiditis Presenting with Oligomenorrhea

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Abstract

Subacute thyroiditis is usually associated with a prodromal flu-like illness and neck pain, with variable enlargement of the thyroid gland. In this case, a 43-year-old woman presented to her GP with a two year history of oligomenorrhoea and an initial suspicion of the perimenopause. Further investigation, however, revealed deranged thyroid function tests and, subsequently, a history of neck pain. The patient's condition resolved of its own accord, and her menstrual cycle began to regulate once again. Thyroid function tests are standard baseline investigations in oligomenorrhoea in primary care and, yet, in this case they had not been undertaken.

Keywords: Menopause; Menstrual cycle; Oligomenorrhoea; Subacute thyroiditis

Background

Subacute thyroiditis is a transient, self-limiting inflammation of the thyroid gland, thought to be triggered by viral infection or a post-viral inflammatory process. It typically follows a triphasic clinical course of hyperthyroidism, hypothyroidism and a return to the euthyroid state over a period of weeks to months. The initial thyrotoxicosis results from the destruction of the thyroid follicular cells, induced by antigen-stimulated cytotoxic T-lymphocytes, and the subsequent release of excessive thyroid hormone. Suppression of thyroid stimulating hormone (TSH), and the depletion of colloid, produces a temporary, usually asymptomatic, hypothyroid picture, which typically resolves in 2-8 weeks. Medical treatment is not indicated in the majority of patients.

A relatively rare condition, subacute thyroiditis tends to affect women more often than men (3:1 to 5:1); it is most common between the ages of 30 and 50. Diagnosis is based on clinical findings and is generally associated with a prodromal flu-like illness and neck pain, with variable enlargement of the thyroid gland. Presentation can be sudden or gradual, and patients may experience signs and symptoms of either thyrotoxicosis or hypothyroidism depending on the individual course of their illness. It is important to be aware, however, that not all cases of this disorder present in the classic fashion and this can lead to difficulties in diagnosis. Here we describe one such case: a patient with subacute thyroiditis presenting with a two-year history of oligomenorrhoea.

Case Presentation

A 43-year-old business development director, with no history of thyroid disease, was referred for consultant opinion regarding a recent history of episodic oligomenorrhea and suspected early menopause. Having undertaken online research, keen to understand her symptoms, she had concluded she might be perimenopausal and had presented to her GP [1].

Commencing menarche at the age of 15, her periods had always been regular, heavy and painful. Two years previously, she had experienced a two-month gap between menstrual cycles and, from then on, her periods had become sporadic; her last period was four months prior to presentation.

The patient had noticed slight breast enlargement and mild insomnia, and described feeling as though she "had PMS". She denied suffering hot sweats, palpitations or urinary symptoms and had no noticeable skin or hair changes. There was no history of change in her appetite, bowel habits or weight, and no history of hirsutism [2].

A physically active woman, she had a body mass index (BMI) of 21 kg/m^2 and a blood pressure (BP) of 110/60 mmHg, with no postural drop. Chest, heart and abdominal examination were unremarkable, and the vagina appeared well oestrogenised.

It was arranged for her to undergo a number of investigations including FSH/LH, oestradiol, prolactin, CA-125 and thyroid function tests (TFTs). She was reviewed four weeks later, together with her blood results:

Investigation	Result	Reference range
Follicle Stimulating Hormone (FSH)	13.2 IU/L	Follicular: 3.5-12.5 Mid-cycle: 4.7 – 21.5 Luteal: 1.7-7.7 Post-meno: 25.8-134.8
Luteinising Hormone (LH)	8.5 IU/L	Follicular: 2.4-12.6 Mid-cycle: 14.0-95.6 Luteal: 1.0-11.4 Post-meno: 7.7-58.5
Oestradiol (17-beta oestradiol)	673 pmol/L	Follicular: 46-607 Mid-cycle: 315-1828 Luteal: 161-774 Post-meno: < 201
Prolactin	408 mIU/L	102-496

CA-125	25 KIU/L	0-35
Thyroid Stimulating Hormone (TSH)	*14.50 mIU/L	0.27-4.20
Free Thyroxine (FT4)	*10.2 pmol/L	12.0-22.0

Table 1: Investigations including FSH/LH, oestradiol, prolactin, CA-125 and thyroid function tests (TFTs).

As a result of her abnormal TFTs, it was arranged for the patient to have thyroid antibody screening:

Investigation	Result	Reference range
Thyroglobulin Antibodies	*507.4 IU/ml	0-115
Thyroid Peroxidase Antibodies	*522.9 IU/ml	0-33
Anti-Parathyroid Antibodies	Negative	N/A

Table 2: Patient to have thyroid antibody screening.

From the menopause clinic, she was referred to an endocrine specialist in thyroid disorders. The subsequent endocrinological opinion revealed a recent history of neck pain, which had lasted for approximately three weeks. Neck, thyroid and eye examination were normal. An initial diagnosis of autoimmune hypothyroidism was suggested, and TFTs were repeated [3].

At review, six weeks later, the patient's thyroid function test was back within the normal range, with a TSH of 2.90 mIU/L and a Free T4 of 13.1 pmol/L. She was well in herself and her periods had started to return, albeit scantily. She was discharged back to primary care with the final diagnosis of subacute thyroiditis, now fully resolved. Repeat TFTs were recommended at three months and then six monthly over the long-term, or sooner should symptoms suggestive of thyrotoxicosis or hypothyroidism develop.

Discussion

This case raises some interesting points for discussion. What would have happened if the patient had not undergone thyroid function testing? What would have been the outcome had she been treated inappropriately with hormone replacement therapy (HRT)? Could raising awareness of the menopause and its symptoms in both health professionals and the lay population lead to other conditions being overlooked?

In the event that TFTs had not been tested, we may well be correct to assume that no harm would have occurred; after all, the patient's periods began to return and her thyroid function ultimately self-resolved. However, at the very least, she may have felt frustrated and anxious at the lack of answers to her symptoms, and could have lost confidence in her doctors [4]. Had she been prescribed HRT, it is possible that she may have falsely concluded that this either alleviated her symptoms (when they resolved of their own accord) or made the assumption that HRT did not work (albeit for the wrong reasons). In the latter case, and if she discontinued it, this could have had a negative impact on her health and well-being should she require HRT in the future. Should she struggle in her peri-menopausal years she may feel resigned to her situation and fail to seek help, assuming there is nothing that can be done.

Whilst raising awareness of climacteric health issues may lead some women to falsely attribute their symptoms to the menopause, we do not feel we can automatically conclude this is a negative. In some circles, discussing the menopause remains somewhat taboo; openness and willingness to talk helps breaks down these barriers and encourages women to seek much-needed support. Medicine is an inexact science, and as medical professionals, it is part of our duty of care to listen and investigate as appropriate.

For us, the main thing that stands out about this case is that the patient's thyroid function did not appear to have been tested in primary care. As a routine screening tool in such presentations this is surprising [5].

In this case, the patient thankfully received an adequate explanation for her oligomenorrhoea and was given the advice to return to her doctors with any further concerns. She should be reassured that she remains likely to enter the menopause at the average age (around 50 years) and that this episode of subacute thyroiditis will not impact this.

Literature Review

Both hyper- and hypothyroidism can result in menstrual disturbances, although Kakuno et al. (2010) revealed that this is less frequent than previously thought. The most common manifestation in hyperthyroidism is simple oligomenorrhea, whereas a hypothyroid picture presents more typically with polymenorrhea. Anovulatory cycles are common in both.

In 2000, Doufas and Mastorakos suggested that specific thyroid hormone receptors at the ovarian level might regulate reproductive function and that oestrogens influence at the level of the hypothalamic-pituitary-thyroid axis (HPT). Fertility is reduced in all types of thyroid dysfunction, and is associated with poorer pregnancy outcomes than in euthyroid women [6].

Over a three-year period, Oi and Ohi surveyed thyroid function abnormalities and menopausal symptoms in young as well as in menopausal women. They showed that the symptoms of thyroid dysfunction were very similar to menopausal symptoms and were found to occur in younger women before the onset of menopause.

A review by Eaton, Webster and Allahhabadia [4] found that whilst thyroid disorders are common in postmenopausal women the menopause itself seems to have limited direct effects on the development of thyroid disease. However, oral HRT can affect thyroxine requirements and, subsequently, women with pre-existing thyroid dysfunction who are on HRT need careful dose titration and monitoring. Similarly, the withdrawal of HRT may reduce thyroxine requirements. Buckler warns that selective oestrogen receptor modulator (SERM) therapy may alter the results of TFTs and therefore complicate the diagnosis and monitoring of thyroid dysfunction in ovarian failure [7].

Conclusions

Symptoms of thyroid disease and the menopause can be very similar and, therefore, need to be differentiated. Furthermore, both postmenopausal women and those women with untreated thyroid disorder are at increased risk of cardiovascular disease and osteoporosis. Although thyroid screening in asymptomatic women is controversial, Pearce recommends aggressive case finding, especially in older women, and the treatment of overt thyroid dysfunction.

This case of subacute thyroiditis was unusual in that the primary presenting complaint was oligomenorrhea, without history of systemic upset or preceding infective trigger. The patient's revelation of a painful neck was retrospectively indicative, but not a symptom that would be routinely picked up on gynaecological assessment. However, this case emphasises the fact that presentation of subacute thyroiditis may be non-specific and should be considered in the differential for a premenopausal patient with menstrual disturbances.

References

1. Kakuno Y, Amino N, Kanoh M, Kawai M, Fujiwara M, et al. (2010) Menstrual disturbances in various thyroid diseases. Endocr J 57: 1017-1022.
2. Doufas AG, Mastorakos G (2000) The hypothalamic-pituitary-thyroid axis and the female reproductive system. Ann N Y Acad Sci 900: 65-76.
3. Koutras DA (1997) Disturbances of menstruation in thyroid disease. Ann N Y Acad Sci 816: 280-284.
4. Oi N, Ohi K (2013) Comparison of the symptoms of menopause and symptoms of thyroid disease in Japanese women aged 35-59 years. Climacteric 16: 555-560.
5. Eaton SE, Webster J, Allahabadia A (2003) Thyroid disease and the menopausal woman. J Br Menopause Soc 9: 82-84.
6. Pearce EN (2007) Thyroid dysfunction in perimenopausal and postmenopausal women. Menopause Int 13: 8-13.
7. Buckler H (2007) Thyroid disease and ovarian failure. Menopause International 4: 193.