

Abstract

Status of the Thyroid Gland in Pregnancy and its Relation to Postpartum Depression

Janice Marvarie Wissart

Important changes occur in thyroid physiology during pregnancy, which serve as a challenge to thyroid function.

Adequate adjustment by the hypothalamic – pituitary – thyroid axis, allow most women to remain euthyroid with only slight changes in thyroid volume and other thyroid functions. In approximately ten percent of women, the challenge to thyroid economy results in thyroid hypofunction.

Hypothyroidism is a significant risk factor for depression; therefore, a sizable subgroup of women has some basis for postpartum depression in thyroid disorder. This study is to elucidate the association between such hypothyroidism and postpartum depression.

Blood samples were collected from 73 healthy subjects attending the UHWI antenatal clinic, at booking, 28 weeks, 36 weeks of gestation, and 1 day and 6 weeks postpartum. Serum levels of total thyroxine, free tri-iodothyronine, thyroid stimulating hormone, human chorionic gonadotropin, and thyroglobulin were determined by radioimmunoassays. Thyroid volume was estimated by ultrasonography. The Zung self-rating depression scale for quantitative measurement of depression was administered at 28 weeks gestation and six weeks postpartum.

Six weeks after delivery, the prevalence of thyroid dysfunction was 11.9% in the total study population. Included was one case of hyperthyroidism, one case of hypothyroidism, and six of sub clinical hypothyroidism. Twenty-five women (35%) were clinically depressed, seventeen cases were mild depression and eight were moderately depressed. The cohort was subdivided on the basis of depression status pre and postpartum, four subgroups emerged:

- (a) women who were depressed both pre and postpartum
- (b) women depressed in the prepartum period only
- (c) women who developed depression postpartum
- (d) women without depression in both periods.

Analysis of the demographic data and thyroid tests of the subgroups revealed; depression beginning in the prepartum is associated with parity and marital status, while depression with onset in the postpartum period only is associated with thyroid dysfunction.

Keywords: Janice Marvarie Wissart; Thyroid gland and Postpartum Depression.