## EVALUATING MOOD DISORDERS AND FUNCTIONAL WELL-BEING OF PATIENTS WITH PREMATURE OVARIAN INSUFFICIENCY

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Background: Premature ovarian insufficiency (POI) is diagnosed in women less than 40 years old, with amenorrhea for more than 4 months, and FSH levels in the menopausal range. POI is associated with negative physical (early bone loss, menopausal symptoms, and loss of fertility), and psychological effects.

Objective: The goal of this research project was to identify and evaluate mood disorders in patients diagnosed with POI and assess their functional well-being.

Materials and Methods: From 1991–2017 an NIH protocol studied patients with POI. Data was obtained from 899 patients within the NICHD Data and Specimen Hub database. POI was confirmed in 881 of the patients; 206 women completed the validated Mood Disorder Questionnaires screening for depression and bipolar disorder (BPD) and 142 patients completed a Functional Well Being Survey (FWBS). The FWBS consisted of 7 questions and utilized a Likert scale, where 0 represents "Not at all", 1 represents "A little bit", 2 represents "Somewhat", 3 represents "Quite a bit", and 4 represents "Very Much". Data were analyzed using descriptive statistics with means and standard deviations.

Results: The average age at POI diagnosis for both sets of patients was 29.6 years (SD 6.6) and the average age at the time of questionnaire and survey completion was 33.2 years (SD 5.4). Regarding depressive symptoms, 80.4% reported feeling tired or having little energy, 73.9% had trouble sleeping, and 61.3% felt down or depressed; 42.4% of patients met diagnostic criteria for depression (having at least 5 depressive symptoms for 2 weeks). Regarding BPD manic symptoms, 52.5% reported irritable mood, 43.8% had racing thoughts, and 47.1% were easily distracted; 6% met the diagnostic criteria for BPD. In the FWBS, when collapsing answers "very much" and "quite a bit," 53.5% accepted their illness, 89.4% were able to work, 71.8% were able to enjoy life, and 53.5% were content with the quality of their life. When collapsing answers "not at all" or "a little bit" 15.4% had a hard time accepting their POI diagnosis and 28.9% were not sleeping well.

Conclusions: Based on validated questionnaires, patients with POI appear to have higher depression scores than reproductive-aged women (42% vs. 5%) but were similar to menopausal women (42% vs. 39%). The rate of BPD was 6% of patients in our POI cohort, which was higher than the general adult female population (2.8%). For functional well-being, most patients accepted their POI diagnosis, were able to work, and found enjoyment in their lives despite their diagnosis. Sleeping was an issue noted in the depression questionnaire and FWBS. Time lapse may have been a contributing factor since well-being was assessed approximately 3.6 years after diagnosis. POI is a condition that not only negatively impacts future fertility outcomes but can also be associated with a higher incidence of depression and BPD. Providers should be mindful that it may take extended time for patients to accept their diagnosis. Timely screening for mood disorders in this population is vital in order to avoid delays in connecting patients to resources (i.e. mental health providers).

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