Current practice in treating adult female thalassemia major patients with hypogonadism: An International Network of Clinicians for Endocrinopathies in Thalassemia and Adolescence Medicine survey from Italy

Sir,

It is well known that the older generations of adult patients with thalassemia major (TM) have a higher incidence of morbidities mainly due to iron overload and chronic liver disease.[1,2] Hypogonadotropic hypogonadism (39.1%) and secondary amenorrhea (78.5%) are the most common endocrine complications in female TM patients.[1,2]

Despite the fact that hormone replacement therapy (HRT) is still a controversial therapy in postmenopausal women, there is no doubt among physicians that all women with hypogonadism have to replace their missing sex steroids for a long time.[1-3]

We reviewed HRT options for hypogonadal adolescents and young adults with TM to determine the relevant attitudes and practices of thalassemologists in Italy through a survey that was held on the 19th and 20th of March 2015, in Rome, during the 10th International Workshop of International Network of Clinicians for Endocrinopathies in Thalassemia and Adolescence Medicine.[4]

A questionnaire was distributed before the beginning of sessions to investigate the audience's attitudes and practices in the management of hypogonadism in TM. The answers were collected at the end of all sessions. Twenty-five questionnaires were distributed and 24 (96%) were returned.

We summarize the results as follows:

The participants included ten pediatricians, four endocrinologists, and ten hematologists. They follow-up 2326 TM patients. Twelve different formulations and three routes of administration for HRT were used. The majority of respondents used ethinyl estradiol 30 μg/drospirenone 3 mg (33.3%) as first-line treatment choice followed by ethinyl estradiol 20 μg/drospirenone 3 mg (25%). Ethinyl estradiol 35 μg/cyproterone acetate 2 mg (41.6%) and ethinyl estradiol 20 μg/drospirenone 3 mg (29.1%) were reported as second-line treatment choice. Transdermal patch, estradiol transdermal plus progesterone, and etonogestrel/ethinyl estradiol vaginal ring were used and recommended by 16.6%, 4.1%, and 4.1%, respectively.

The following points emerged from the analysis of data and meeting discussion:

- Despite the large number of TM patients for whom HRT is prescribed, little prospective data exist to aid clinicians in making evidence-based decisions for the optimal treatment regimens
- No evidence-based guidelines for the management of these patients exist, and many recommendations are based on theoretical knowledge about physiology and endocrinology and extrapolated from the evidence of HRT in normal postmenopausal females
- Further investigations are needed to understand whether HRT should be continued until the average age of menopause
- No data are available to evaluate the impact of HRT therapy in TM patients on other risk factors associated with the disease such as liver dysfunction and impaired glucose tolerance. Long-term risks for the development of breast cancer, endometrial cancer, venous thromboembolism, and cardiovascular events are not known.

In conclusion, long-term HRT is required for relief the symptoms of hypogonadism and to prevent long-term health sequel of estrogen deficiency. The type of HRT, dosage, and route of administration are extremely complex in patients with thalassemia because of the chronicity of treatment and because many physical and psychological changes take place during the treatment period.[5] Therefore, international research consortia should be established to allow investigation of these important questions, and to allow clinicians to make the best possible health-care HRT treatment decisions.

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Conflicts of interest

There are no conflicts of interest.

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