## Hyperthyroidism in Elderly Can Be Hard to Spot

## Biochemical tests can help make the diagnosis, and the first step in that process is to order a serum TSH.

BY SHERRY BOSCHERT
San Francisco Bureau

SAN FRANCISCO — Hyperthyroid disease can be deceptively symptom free or mildly symptomatic, especially in the elderly, Dr. Hossein Gharib said at Perspectives in Women's Health sponsored by Ob.Gyn. News.

Common symptoms of hypermetabolism include warm, moist skin, fine hair, physically stimulated or nervous mannerisms, possibly a goiter present on palpitation, and perhaps symptoms such as eye asymmetry, a typical hyperthyroid "stare," and lid retraction.

Elderly patients with hyperthyroidism, however, may complain instead about lethargy, fatigue, or depression. They also have cardiac disease, or atrial fibrillation.

"It is easy to miss the diagnosis [in elderly patients]," said Dr. Gharib, professor of medicine at the Mayo Clinic in Rochester, Minn.

Biochemical tests make the diagnosis. The first step is to order a serum TSH; if it's low, especially if less than  $0.1~\mathrm{mIU/L}$ , the patient has hyperthyroidism until proven otherwise, he said.

Next, order total T4 and free T4 fractions; if these are high and the TSH is low, that confirms the diagnosis of hyperthyroidism

For high suspicion of hyperthyroidism in a patient, test both the TSH and thyroid hormone levels at the same time, he added

Finally, conduct a radioiodine uptake test, which will differentiate between Graves' disease (which accounts for 70%-80% of hyperthyroidism and requires treatment) and thyroiditis (which is less common and usually subsides spontaneously). Dr. Gharib said.

For most hyperthyroid adults, radioiodine therapy is the treatment of choice. Follow up within 2 months or sooner. Patients will become hypothyroid sooner or later and will require lifelong thyroxine therapy.

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Younger patients often present with the typical hyperthyroid "stare," while elderly patients complain of lethargy, fatigue, or depression and have atrial fibrillation.

are the first choice in treatment. Follow total T4 and free T4 levels in patients on medical therapy and aim for high-normal levels, Dr. Gharib advised. Antithyroid drugs are safe during breast-feeding.

Surgery is a treatment option starting in the second trimester if there's an experienced surgeon in your area. However, surgery for benign thyroid disease is rare enough that finding an experienced surgeon can be difficult, he said. Surgery typically is reserved for toxic nodular goiters, large symptomatic goiters, children with hyperthyroidism, or pregnant patients.

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An estimated 0.5%-1% of adults have hyperthyroidism, which is more common in women.

Dr. Gharib has no association with the companies that make the treatments he discussed. Ob.Gyn. News is published by the International Medical News Group, a division of Elsevier.

## New Turner Syndrome Guidelines Urge Better Adult Care

BY CHRISTINE KILGORE

Contributing Writer

Updated guidelines on evaluating and treating girls and women with Turner syndrome advise against the practice of delaying puberty to increase height and emphasize the importance of early diagnosis, estrogen treatment, and more comprehensive cardiovascular evaluation—including the use of diagnostic MRI—than is typically done today.

Although the guidelines from the international, multidisciplinary Turner Syndrome Consensus Study Group detail how children should be evaluated and cared for—emphasizing, for example, the importance of comprehensive educational evaluation in early childhood—the experts also clearly state that care for adults is more often falling short.

"The care of adults with [Turner syndrome] has received less attention than [has] the treatment of children, and many seem to be falling through the cracks with inadequate cardiovascular evaluation and estrogen treatment," say the new guidelines, published in the Journal of Clinical Endocrinology and Metabolism.

On the other hand, while medical care must be improved and while many questions about care "remain unanswered," the experts "realize now that we have a lot more well-functioning people with [Turner syndrome]," Dr. Carolyn A. Bondy said in an interview.

Dr. Bondy, chief of the developmental endocrinology branch at the National Institute of Child Health and Human Development in Bethesda, Md., chaired the consensus conference and guideline-writing committee for the consensus group, which met last summer to update the old recommendations, first issued in 2001. The guidelines mainly represent "consensus judgments" rather than evidence-based conclusions, the committee noted in its document.

The clinical spectrum of Turner syndrome is "much

broader and often less severe than that described in many textbooks"—a finding that seems at odds with a "high elective abortion rate for incidentally diagnosed 45,X and 45,X/mosaic fetuses," the guidelines say. This means that the content of prenatal counseling "needs updating" with the input of Turner syndrome patient and parent groups, the document says.

That's especially true now that the American College of Obstetricians and Gynecologists is recommending

that all women, regardless of their age, be offered screening for Down syndrome. Parents who receive a Turner syndrome diagnosis from such screening (Turner syndrome can be an incidental finding) must be given information about the broad phenotypic spectrum of the syndrome and the high quality of life for many patients, Dr. Brody said.

Recent reports of an often-normal quality of life for those receiving comprehensive medical care should encourage—not mitigate—the efforts of physicians to diagnose Turner syndrome as early as possible and better appreciate its many consequences, she said.

The diagnosis should be considered in any female with unexplained growth failure or pubertal delay or any constellation of the syndrome's characteristic physical features, the guidelines say.

"Regrettably, late diagnosis of Turner syndrome, even

"Regrettably, late diagnosis of Turner syndrome, even in adults, is still a problem. No matter what the age of the patient, a full work-up with assessment of congenital malformations should be performed, including all screening tests recommended for younger patients," the document says.

Adults with Turner syndrome should then be regularly screened for hypertension, diabetes, dyslipidemia, aortic enlargement, hearing loss, osteoporosis, and thyroid and celiac diseases (J. Clin. Endocrinol. Metab. 2007:92:10-25).

The guidelines offer age-specific suggestions for ovarian hormone replacement and say that "ideally, natural

estradiol and progesterone, rather than analogs, should be delivered by transdermal or transmembranous routes so as to mimic age-appropriate physiological patterns as closely as possible."

Regimens can vary to meet individuals' tolerance and preference, however, and "the most important consideration is that women actually take ovarian hormone replacement," the authors say.

Without it, the risk of significant osteoporosis is high. "These women can have severe osteoporosis at 25," said Dr. Bondy. "I have a 30-year-old patient who has lost 2 inches of height and has a hump."

Estrogen therapy often is required to induce pubertal development (30% or more will undergo some spontaneous pubertal development), but experts used to recommend delaying estrogen therapy until age 15 to optimize height potential.

The current consensus is that such delay undervalues the psychosocial importance of age-appropriate puberty. Recent evidence also suggests that low-dose estrogen does not inhibit growth hormone–enhanced increases in stature, said Dr. Bondy.

"There's a new focus on natural, sensitive, and timely puberty induction," she said.

Recent studies have also suggested a broader spectrum of cardiovascular abnormalities than was previously recognized, and the consensus group agreed to bring "the heart to the forefront," Dr. Bondy said.

"There's a new emphasis [in the guidelines] on the fact that everyone needs cardiovascular screening—from the newborn to the woman who's 20 and just found out she's infertile [and has Turner syndrome] to the woman who's 40 and just got the [Turner syndrome] diagnosis," commented Dr. Bondy.

And while echocardiography usually is adequate for screening infants and young girls, MRI also must be performed in older girls and adults.

Reports of fatal aortic dissection during pregnancy and the postpartum period have raised concern about the safety of pregnancy in Turner syndrome, and "preconception assessment must include cardiology evaluation with MRI of the aorta," the experts say.