Endocrine Disorders Overlooked During Cancer Tx

BY JEFF EVANS
Senior Writer

WASHINGTON — The focus on short-term goals during cancer treatment can overshadow care for diabetes and other endocrine disorders that patients may have or acquire as they undergo treatment.

When cancer patients return to the community after successful treatment at a cancer center, it's easy for their primary care physicians "to lose focus on their other medical problems, because cancer becomes the focus when they're at the cancer center," Robert F. Gagel, M.D., said at a consensus conference on patient safety and medical system errors in diabetes and endocrinology.

A similar situation can develop when patients receive cancer treatment in the community or at a university hospital where oncology is not a major part of the hospital's services, said Dr. Gagel of the division of internal medicine at the M.D. Anderson Cancer Center, Houston.

Dr. Gagel and his colleagues convinced administrators at the center that intensive control of diabetes was important enough to merit building a diabetes section there. That "is quite an amazing thing if one understands how resources are allocated" in a cancer center, he said.

Patients with impaired glucose tolerance who were in the Second National Health and Nutrition Examination Survey Mortality Study had a higher cumulative mortality from cancer than did patients who had normal glucose tolerance (Am. J. Epidemiol. 2003;157:1092-100). Similarly, in a study of colon cancer mortality, diabetic patients had lower survival than did nondiabetic patients (J. Clin. Oncol. 2003;21:433-40).

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Another study showed that the development of two or more episodes of hyperglycemia (blood glucose level of 200 mg/dL or higher) during the first 30 days of induction chemotherapy for acute lymphocytic leukemia was associated with a significant reduction in the median duration of complete remission and median survival, compared with patients who did not have hyperglycemia (Cancer 2004;100:1179-85).

The reason for higher mortality among patients with hyperglycemia is unknown, Dr. Gagel noted, although it might be due to higher rates of infection. The hyperglycemic patients in the leukemia study developed sepsis or any complicated infection at higher rates than did patients without hyperglycemia.

Many cancer patients, especially those with breast cancer, have a high risk for osteoporosis. The major contributor to bone loss in patients with breast cancer is hypogonadism in the 50% or more of women who develop ovarian failure after chemotherapy. Of 49 women in a study who had early-stage breast cancer treated with adjuvant chemotherapy, 35 developed ovarian failure and had a rapid progression of bone loss 6 and 12 months later (J. Clin. Oncol. 2001;19:3303-5). About 14% of breast cancer survivors in the Women's Health Initiative study had a fracture during less than 5 years of follow-up.

The introduction of aromatase inhibitors in the last 2 years has contributed to the risk of osteoporosis in breast cancer patients, Dr. Gagel said. Aromatase inhibitors block conversion of androstenedione to estrone, or testosterone to estradiol, thereby lowering estrogen levels further.

In a recent trial comparing the aromatase inhibitor anastrozole (Arimidex) with tamoxifen, anastrozole significantly decreased spinal and hip bone mass after a median follow-up of 33 months, compared with tamoxifen. The rate of fractures also was significantly higher with anastrozole than with tamoxifen (Lancet 2002;359:2131-9). Follow-up at 47 months did not show continued worsening of bone mass or fracture risk (Cancer 2003;98:1802-10).

The conference was cosponsored by the American College of Endocrinology and the American Association of Clinical Endocrinologists. ■

Detection and Reversal of Hypoglycemia Unawareness

KEYSTONE, COLO. — Hypoglycemia unawareness is a common problem constituting a major risk factor for severe hypoglycemic episodes involving seizures or coma, Georgeanna Klingensmith, M.D., said at a conference on management of diabetes in youth sponsored by the University of Colorado.

Moreover, hypoglycemia unawareness is likely to become even more frequent as physicians strive to meet tighter glycosylated hemoglobin targets in order to reduce the long-term risks of diabetic retinopathy and nephropathy, predicted Dr. Klingensmith, professor of pediatrics at the university.

The good news is, hypoglycemia unawareness is reversible simply by avoidance of hypoglycemia for 7-21 days.

"I usually find that 7-10 days after setting target blood glucose levels higher, the patient can regain hypoglycemia awareness. Then you can reset the blood glucose targets. So if we can correct hypoglycemia unawareness, we may be able to avoid hypoglycemia in the first place," she explained.

Before you can set about reversing hypoglycemia unawareness, however, you first have to suspect its presence. That's why it's vital to ask type 1 diabetic patients about hypoglycemic symptoms at every office visit.

"I'm kind of a nut case on this, because I think hypoglycemia unawareness is more common than we expect and really is a cause of severe hypoglycemia," she added.

Symptoms of neuroglycopenia suggest a patient is experiencing hypoglycemia unawareness. So do hypoglycemic symptoms occurring at a blood glucose level of less than 60 mg/dL.

Hypoglycemia unawareness results from CNS adaptation to hypoglycemia, which increases levels of the glucose transport protein GLUT1 mRNA in the ventromedial hypothalamus. The result is preferential brain glucose uptake. The brain doesn't; sense hypoglycemia is occurring, hence, it no longer releases epinephrine as a counterregulatory response.

Nocturnal hypoglycemia is a major cause of hypoglycemia unawareness. In one representative study in which 47 children with type 1 diabetes underwent continuous blood glucose monitoring for a mean of 70 hours, 83% experienced at least one episode of unrecognized nocturnal hypoglycemia.

—Bruce Jancin

'Clinical Inertia' Contributes to Failures of Diabetes Management

BY KATE JOHNSON
Montreal Bureau

QUEBEC CITY — The management of diabetes is compromised by "clinical inertia" in responding to a patient's elevated hemoglobin A_{1c} levels, according to a new study.

"Over half of the patients in our study were not prescribed any change at all in their medications after a poor HbA_{1c} reading," said Baiju Shah, M.D., of the Institute for Clinical Evaluative Sciences, Toronto. "This is what has been described in the literature as the phenomenon of clinical inertia—when the physician recognizes a problem but doesn't do anything about it."

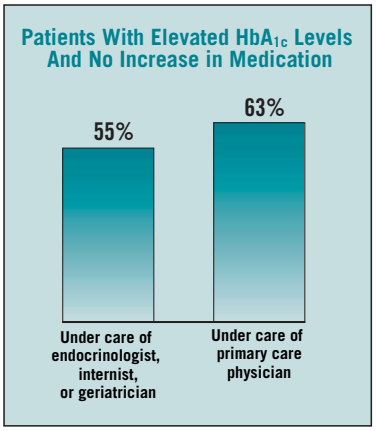
Dr. Shah's retrospective study analyzed the responses of physicians to their diabetes patients' elevated HbA_{1c} results. He presented the findings in a poster at the joint annual meeting of the Canadian Diabetes Association and the Canadian Society of Endocrinology and Metabolism.

The 1,170 patients were aged 65 years or older, had non–insulin requiring type 2 diabetes, and had an HbA_{1c} level above 8%, indicating poor glycemic control.

A comparison was made of the medications prescribed to each patient during the 4 months preceding the unfavorable HbA_{1c} test result and during the 4 months after the test.

Drug intensification was defined as the addition of a new oral drug, an increase in the dose of an oral drug, or the initiation of insulin.

"We were looking for any increase in medication. It didn't matter if it was inadequate, as long as there was some change indicating that the physician had responded to the test result," Dr. Shah told this newspaper.



Half the patients were seeing primary care physicians (defined in Canada as mostly family physicians), and half were seeing endocrinologists, internists, or geriatricians (all classified as specialists in Canada).

Most of these patients with elevated HbA_{1c} levels did not have an increase in medication (55% of patients seeing endocrinologists, internists, and geriatricians; 63% of patients seeing primary care physicians).

Although all physicians were about equal in terms of adding new oral drugs or increasing the dosage of oral drugs, there was a difference in their approach to initiating insulin.

Of patients seeing endocrinologists, internists, and geriatricians, 9% were started on insulin, vs. 2% of patients seeing primary care physicians, he said.

The phenomenon of clinical inertia has been described in the context of other conditions such as hypertension and hypercholesterolemia, as well as in other aspects of diabetes care, he said.

"In this study, there is no question that a lack of medication adjustment in response to a poor HbA_{1c} result could partly be the choice of the patients who were already taking a lot of medications and didn't want to add another," he said.

"But many times, it is also the physicians," Dr. Shah added. "They get distracted by other things that they need to address with the patient, or they may interpret a result as getting slightly better, when really it is not." ■